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## BULLETIN

 OF
## Duke University

THE SCHOOL OF MEDICINE



1946

## FOREWORD

This bulletin is issued for prospective medical students. Admissions into any class are made only on the understanding that every decision of the Executive Committee shall apply to all students, even though it is made subsequently to their enrollment in the School. At frequent intervals the Executive Committee reviews the records of all students, and those whose progress has been unsatisfactory may be required to leave the School. Only those will be advanced who, in the opinion of the executive committee, give promise of being a credit to themselves and to the school. The next first-year class will be admitted October 7, 1946. For admission requirements and applications, see page 36.

## 1946

| JANUARY |  |  |  |  |  |  | APRIL |  |  |  |  |  |  | JULY |  |  |  |  |  |  | OCTOBER |  |  |  |  |  |  |
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| 27 | 28 | 29 | 30 | 31 |  |  | 28 | 29 | 30 |  |  |  |  | 28 | 29 | 30 | 31 |  |  |  | 27 | 28 |  | 30 | 31 |  |  |
| FEBRUARY |  |  |  |  |  |  | MAY |  |  |  |  |  |  | AUGUST |  |  |  |  |  |  | NOVEMBER |  |  |  |  |  |  |
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1947

| JANUARY |  |  |  |  |  |  | APRIL |  |  |  |  |  |  | JULY |  |  |  |  |  |  | OCTOBER |  |  |  |  |  |  |
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| FEBRUARY |  |  |  |  |  |  | MAY |  |  |  |  |  |  | AUGUST |  |  |  |  |  |  | NOVEMBER |  |  |  |  |  |  |
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## SCHOOL OF MEDICINE CALENDAR, 1946-1947

1946
Jan. 2 Wednesday-Registration of students, and Winter Quarter begins.
March 23* Saturday-Winter Quarter ends.
April 1 Monday-Registration of students, and Spring Quarter begins.
April 22 Easter Monday: a holiday.
June 22 Saturday-Spring Quarter ends.
July 1 Monday-Registration of students, and Summer Quarter begins. $\bar{\top}$
July 4 Thursday-A holiday.
Sept. 14 Saturday-Summer Quarter ends.
Oct. 7 Monday-Registration of students, and Autumn Quarter begins.
Nov. 28 Thursday-Thanksgiving: a holiday.
Dec. 21 Saturday-Autumn Quarter ends.

1947
Jan. 6 Monday-Registration of students, and Winter Quarter begins.
March $22 \ddagger$ Saturday-Winter Quarter ends.
March 31 Monday-Registration of students, and Spring Quarter begins.
April 7 Easter Monday: a holiday.
June 14 Saturday-Spring Quarter ends.
June 23 Monday-Registration of students, and Summer Quarter begins. $\dagger$
July 4 Friday-A holiday.
Sept. 6 Saturday-Summer Quarter ends.
Oct. 6 Monday-Registration of students, and Autumn Quarter begins.
Nov. 27 Thursday-Thanksgiving: a holiday.
Dec. 20 Saturday-Autumn Quarter ends.

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## FACULTY OF THE SCHOOL OF MEDICINE

ALEEANDRA ADLER, M.D., Visiting Assistant Professor of Neuropsychiatry.
M.D., Vienna, 1926; Int., Res. and Visiting Phys. in Neuropsych., Hosp. of Univ. of Vienna, 1926-1934; Res. Fell., Ass't. and Instr. in Neuro., Harvard, 1935-1944; Res. Assoc., Junior Visiting Phys., Boston City Hosp., 1935-1944; Graduate Ass't. in Neuro., Mass. Gen. Hosp., 1939-1941; Assistant Neuropsychiatrist, Duke Hospital, 1944-

LEO ALEXANDER, A.B., M.D., Associate Professor of Neuropsychiatry.
A.B., Obergymnasium, Maturum, 1923; M.D., Vienna, 1929; Int. in Med., Allgemeines Krankenhaus, Vienna, 1927-1928; Demonstrator in Neuroanat. and Neuropath., Vienna, 1926-1929; Int. and Ass't. Res. in Neuropsych., City and Univ. Hosp., Frankfurt am Main, 1929-1933; Teaching Ass't. in Neuropsych., Univ. of Frankfurt am Main, 19311933; Lecturer in Neurol. and Psych., Peiping Union Med. Coll., Peiping, China, 1933; Clin. Ass't., Worcester State Hosp., Worcester, Mass., 1934; Jr. Visit. Neurol ogist and Neuropathologist, Boston City Hosp., 1934-1941; Research Assoc., Boston State Hosp., 1935-1941; Teaching Ass't. and Instr. in Neurol., Harvard, 1934-1941; Visit. Psychiatrist, Washingtonian Hosp., Boston, 1938.1941; Major, Med. Corps, 65th (U. S.) Gen. Hosp., 1942-1945ं; Associate Neuropsychiatrist, Duke Hospital, 1941-

ROBERT LEONHARDT ALTER, M.D., Instructor in Obstetrics and Gynecology.
M.D.. Duke, 1938; Int. on Priv. Med. Serv., and in Med., Johns Hopkins Hosp., 1937. 1938: Int. in Obs., Baltimore City Hosp.. 1938-1939; Int., Ass't. Res., and Resident in Obstetrics and Gynecology, Assistant Obstetrician and Gynecologist, Duke Hospital, 1939-

EDWIN PASCAL ALYEA, S.B., M.D., Clinical Professor of Urology. S.B., Princeton, 1919; M.D., Johns Hopkins, 1923; Int. in Med., Int. and Ass't. Res. in Surg.; Ass't. Res. and Res. in Urol., Johns Hopkins Hosp., 1923-1929; Ass't. and Instr. in Surg., and Instr. in Urol., Johns Hopkins Med. Sch., 1925.1930; Urologist, Duke Hospital, 1930-

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A.B., North Carolina, 1920; M.D., Johns Hopkins, 1924; Int., Union Mem. Hosp., Balto., 1924-1925; Int., Mass. Eye and Ear Infirmary, 1925-1927; Ophthalmologist, Duke Hospital, 1930-
JAY MORRIS ARENA, B.S., M.D., Assistant Professor of Pediatrics. B.S., West Virginia, 1930; M.D., Duke, 1932; Int. in Ped., Johns Hopkins Hosp., 1932-1933; Ass't. Res., Res., and Assistant Pediatrician, Duke Hospital, 1933-
ROBERT JAMES ATWELL, A.B., M.D., Assistant in Medicine.
A.B. and M.D., Duke, 1941 and 1944; Int. and Assistant Resident in Medicine, Duke Hospital, 1944-
THEODORE W. ATWOOD, A.B., D.M.D., Associate in Dentistry. A.B., Duke, 1928; D.M.D., Harvard, 1932; Int. in Dentistry, Johns Hopkins Hosp., 1932-1934; Dentist, Duke Hospital, 1934-
HORACE MITCHELL BAKER, JR., A.B. M.D., Assistant in Surgery. A.B., North Carolina, 1941; M.D., Duke, 1944; Int. and Assistant Resident in Surgery, Duke Hospital, 1944-
LENOX DIAL BAKER, M.D., Associate Professor of Surgery in Charge of Orthopaedics.
M.D.. Duke, 1933; Int. in Orth. Surg. and in Gen'l. Surg.; Ass't. Res. in Orth. Surg., and Res. in Orth., Johns Hopkins Hosp., 1933-1937; Res., Children's Hosp. Sch., 1936; Ass't. and Instr., Orth. Surg., Johns Hopkins Med. Sch., 1935-1937; Orthopaed ist, Duke Hospital, 1937-
MARIE BALDWIN, A.B., M.D., Assistant in Neuropsychiatry.
A.B., Erskine, 1924; M.D., South Carolina, 1929; Int., Rotat., Park View Hosp., Rocky Mount, N. C., 1929-1930; Int., Rotat., Buffalo Children's Hosp., 1930-1931; Res. in Med., Overlook Hosp., Summit, N. J.; Assistant Resident in Nentopsychiatry,
Duke Hospital, $1944-$ Duke Hospital, 1944-

GEORGE JAY BAYLIN, A.B., M.D., Associate Professor of Radiology and Associate in Anatomy.
A.B., Johns Hopkins, 1932; M.D., Duke, 1937; Ass't. in Anat., Duke Med. Sch., 1934. 1937; Int. in Surg., Sinai Hosp., Balto., 1937.1938; Voluntary Ass't. in Path., Guy's Hosp., London, Sept., 1938-Feb., 1939; Instr. in Anat., Duke Med. Sch., Ass't. Res., and Res. in Rad., and Associate Radiologist, Duke Hospital, 1939-
DOROTHY WATERS BEARD, R.N., Research Associate in Surgery.
R.N., Vanderbilt, 1929; Supervisor, Surg. Service, Vanderbilt Univ. Hosp., 1929. 1931; Postgraduate Course in Surg., Charity Hosp., New Orleans, 1931.1932; 1938-
JOSEPH W. BEARD, B.S., M.D., Associate Professor of Surgery in Charge of Experimental Surgery.
B.S., Chicago, 1926; M.D., Vanderbilt, 1929; Ass't. and Instr. in Surg., Vanderbilt Univ. Med. Sch., 1930-1932; Int., Ass't. Res., and Res. in Surg., Vanderbilt Univ. Hosp., 1929-1932; Ass't. in Path. and Bact., Rockefeller Instit. for Med. Research, New York City, 1932-1935; Assoc. in Path. and Bact., Rockefeller Inst. for Med. Research, Princeton, 1935-1937; Assistant Surgeon, Duke Hospital, 1937-

Frederick Bernheim, A.B., Ph.D., Professor of Pharmacology.
A.B., Harvard, 1925; Ph.D., Cambridge, 1928; Nat'l. Research Council Fellow, Johns Hopkins Med. Sch., Dept. of Physiol. Chem., 1929-1930; 1930-
MARY Lillas CHRISTIAN BERNHEIM, B.A., M.A., Ph.D., Assistant Professor of Biochemistry.
B.A., M.A., and Ph.D., Cambridge, 1925, 1927, and 1929; Fellow, Newnham, 1927. 1930; 1930 -
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M.D., Johns Hopkins, 1943; Int. in Path., Duke Hosp., 1943-1944; Int. in Path., Pittsburgh Med. Center, 1944-1945; Assistant in Pathology, Duke Hospital, 1945-
OTTO BILLIG, M.D., Associate in Neuropsychiatry.
M.D., Vienna, 1937; Ass't. in Psych., Univ. of Vienna, 1937-1938; Ass't. in Neur., Rothschild's Hosp., Vienna, 1938-1939; Assoc. in Neuropsych., Highland Hosp., 1939; 1941—
BERNARD BLACK-SCHAFFER, B.Sc., M.D., Associate in Pathology.
B.Sc., New York, 1932; M.D., Vienna, 1937; Int., Rotat., Hosp. of St. Barnabas, Newark, N. J., 1938-1939; Int. in Path., Cumberland Hosp., New York City, 19391940; Fell. in Path., Henry Ford Hosp., 1940-1941; Ass't. in Path., Yale, 1941-1942: Assoc. and Ass't. Prof. of Path., Med. Coll. of Va., 1942-1945; Associate Pathologist, Duke Hospital, 1945-
FRANK CUTCHIN BONE, A.B., M.D., Instructor in Medicine.
A.B., and M.D., Duke, 1940 and 1943; Int. in Med., Strong Mem. Hosp., Rochester, N. Y., 1/1/44-9/30/44; Ass't. Res. and Resident in Medicine, Duke Hospital, 1944-

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EUGENE CALLAWAY, JR., M.D., Assistant in Otolaryngology and Ophthalmology.
M.D., Virginia, 1943; Int. in Psych., Highland Hosp., Asheville, N. C., 1943-1944; Ass't. Res. in Ped., 1944-1945, and Assistant Resident in Otolaryngology' and Ophthal.' mology, Duke Hospital, 1945-

JASPER LAMAR CALLAWAY, B.S., M.D., Associate Professor of Medicine in Charge of Dermatology and Syphilology.
M.D., Duke, 1932; B.S., Alabama, 1935; Ass't. Instr. in Derm. and Syphil., Univ. of Pa. Med. Sch., 1932-1933; Int. and Ass't. Res. in Med., Duke Hosp., 1933-1935; Instr. in Phys. Diag. and Path., Univ. of Alabama, Jan.July, 1935; Instr. in Derm. and Syphil., Pa. Sch. of Med., 1935-1937; Ass't. Field Physician, U. S. Public Health Serv.,' Feb.-July, 1937; Associate Physician and Dermatologist, Duke Hospital, 1937-
R. CHARMAN CARROLL, R.N., A.B., M.D., Associate in Neuropsychiatry. R.N., Highland Hosp., 1930; A.B., Duke, 1935; M.D., Colorado, 1939; Int. in Ped., 1939.1940, and Res. in Psychiatry, Duke Hospital, 1940-1942; Assoc. in Psych., High. land Hosp., Asheville, N. C., 1942-1944; Associate in Neuropsychiatry, Duke Hospital, 1944-
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M.D., St. Louis, 1893, and M.D., Rush, 1897; in practice, Calvert, Tex., 1893-1902; Assoc. Supt., Marysville, Ohio, Sanatorium, 1902-1904; Pres. and Med. Dir., Highland Hosp., Inc., Asheville, N. C., 1904; 1941-
BAYARD CARTER, A.B., B.A., M.A., M.D., Professor of Obstetrics and Gynecology and Chairman of the Department.
A.B., Delaware, 1920; B.A. and M.A., Oxford, 1923 and 1932; M.D., Johns Hopkins, 1925; Member Obs. and Gyn. Staff of New Haven Hosp. and Yale Med. Sch., 19251929; Assoc. Prof. Obs. and Gyn., and Head of Dept., Univ. of Va. Med. Sch., $1929-$ 1931; Obstetrician and Gyuecologist, Duke Hospital, 1931-
ELON HENRY CLARK, Assistant Professor of Medical Art and Illustration. Rochester Instit. of Tech., 1926-1930; Johns Hopkins Sch. of Med. Art, 1930-1932; Instr., Johns Hopkins Sch. of Med. Art, 1932-1933; Artist, Duke Hospital, 1934 -
JOHN POPE COLLINS, A.B., M.D., Assistant in Surgery.
A.B. and M.D., Duke, 1941 and 1944; Int. and Assistant Resident in Surgery, Duke Hospital, 1944-
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B.S., Bates, 1930; A.M. and Ph.D., Harvard, 1931 and 1933; Research Fellow, Laboratoire de Parasitologie, Fac. de Médecine, Paris, 1933-1934; Research Ass't., Harvard Med. Sch. and Mass. Gen'l. Hosp., Jan. 1 to Oct. 1, 1935; 1935-
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ALBERT DERWIN COOPER, A.B., M.D., Instructor in Medicine.
A.B. and M.D., George Washington, 1932 and 1931; Int., Rotat., Garfield Mem. Hosp., Washington, 1931-1932; Int. in Path. and Med., Duke Hospital, 1932-1934; Priv. Prac., Internal Med. and Allergy, 1934-1944; Med. Dir., Durham County Tuberculosis Sanat.; Ass't. Health Officer, Durham City and County Health Department, Durham, N. C., 1934; 1934-

GERALD RICE COOPER, A.B., A.M., Ph.D., Research Associate in Surgery. A.B., A.M... and Ph.D., Duke, 1936, 1938, and 1939; Research Ass't. and Research Assoc., in Biochemistry, 1939-1942; 1942-
*ROBERT LAWRENCE CRAIG, B.A., M.D., Instructor in Neurology. B.A., Amherst, 1931; M.D., Johns Hopkins, 1935; Int. and Ass't. Res. in Med., 19351937, and Ass't. Res. in Neurol, Balto. City Hosps., 1937-1938; Ass't. in Neurol., Johns Hopkins Med. Sch., 1937-1938; Res. in Neuropsychiatry; Major, Med. Corps, U. S. Army, 1942-1946; Assistant Neurologist, Duke Hospital, 1938-
$\dagger$ RAYMOND S. CRISPELL, A.B., M.D., Associate Professor of Neuropsychiatry.
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* On active duty; U. S. Army.
¡On active duty; U. S. Navy.

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A.B., Tulsa, 1941; M.D., Duke, 1944; Int. and Assistant Resident in Otolaryngology and Ophthalmology, Duke Hospital, 1944-
W. KENNETH CUYLER, B.A., M.A., Ph.D., Research Instructor in Obstctric and Gynecologic Laboratory Technics.
B.A., Texas, 1923; M.A., Western Reserve, 1929; Ph.D., Duke, 1941; Dir. of Clin. Lab., Dept. of Endocrinol. and Metabolism, Cleveland Clinics, 1929-1938; 1938-
BINGHAM DAI, A.B., M.A., Ph.D., Lecturer in Psychiatry.
A.B., St. John's, 1923; M.A. and Ph.D., Chicago, 1932 and 1935; Fellow in Soc. Sc., Yale, 1932-1933; Instit. for Psychoanalysis, 1933-1935; Fell., Assoc. and Ass't. Prof. in Med. Psych., Peiping Union Med. Coll., China, 1935-1939; Lecturer in Soc., Tsin Huar 1936-1937; Lecturer in Soc. Psych., Fisk, 1939-1942; 1943-
WILLIAM JOHN DANN, B.Sc., Ph.D., D.Sc., Associate Professor of Plysiology and Nutrition.
P.Sc., Sheffield, 1925; Ph.D., Cambridge, 1930; D.Sc., Sheffield, 1943; Med. Research Scholar, Worshipful Co. of Grocers, 1931-1933; Beit Mem. Research Fellow, 19331937; 1934-
ALAN DAVIDSON, A.B., M.D., Instructor in Otolaryngology and Ophthalmology.
A.B., Dartmouth, 1939 ; M.D., Vermont, 1943; Int. in Surg.; Ass't. Res. and Resident in Otolaryngology and 'Ophthalmology, Duke Hospital, 1944-
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B.S. and Ph.D., Chicago, 1925 and 1929; Douglas Smith Fellow in Anat., 1929; Instr. in Anat., Chicago. 1929; Research Fell., Gen. Ed. Bd., Carnegie Lab. of Embry., Balto., 1935-1936; Visiting Prof. of Anat., Univ. of Tenn., 1942; Instr., Ass't. Prof., Assoc. Prof. and Prof. of Anat., Stanford, 1929.1943; 19+3-
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A.B.. Whitman. 1913; M.S... Teachers Coll., Columbia, 1927; Prof. of Home Economics, Puget Sound, 1915-1917; Dietitian, Univ. of Iowa Hosp., 1919-1920, and Charles T. Miller Hosp.. St. Paul, Minn., 1920-1926; Admin. Dietitian, Lakeside Hosp., Cleveland, 1927-1930; Chief Dictitian, Duke Hospital, 1930-

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B.S., New York, 1922; M.A., Columbia, 1923; M.D., Harvard, 1928; Teaching Fell. in Physiol., Harvard, 1927-1928; Nat'l. Research Fell. in Med., Pennsylvania, 1928-1930; Inst. and Ass't. Prof. in Path., Haryard, 1930-1944; Fell. in Path., Guggenhein Found., 1944; Assistant Pathologist, Duke Hospital, 194-
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B.B.A., Colorado, 1931; Ass't. Sup't. and Superintendent, Duke Hospital, 1936

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## FELLOWS

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Judith Farrar, A.B., B.S., Librarian.
Mildred P. Farrar, Assistant Librarian.
Majorie Burrus, A.B., B.S., Assistant Librarian.
Mary Helen Sniveley, R.N., Anes., Anesthetist.
Maude McCracken, A.B., M.S., Social Service.
Jessie Harned Bufkin, Record Librarian.
Elon Henry Clark, Artist.
Orville A. Parkes, Assistant Artist.
Helen Louise Kaiser, R.P.T.T., Physical Therapist.
*Henry Floyd Pickett, A.B., Photographer.
Robert D. Little, Assistant Photographer.
Christian Adolph Letzing, Braces and Instruments.
*William A. McElduff, Assistant, Braces and Instruments.

## Hospital and Public Dispensary Teaching Staff <br> Chiefs of Services

Edwin Pascal Alyea, S.B., M.D., Urology.
William Banks Anderson, A.B., M.D., Ophthalmology.
Theodore W. Atwood, A.B., D.M.D., Dentistry.
Lenox Dial Baker, M.D., Orthopaedics.
Jasper Lamar Callaway, B.S., M.D., Dermatology and Syphilology.
Bayard Carter, A.B., B.A., M.A., M.D., Obstetrics and Gynecology.
Wilburt Cornell Davison, A.B., B.A., B.Sc., M.A., D.Sc., M.D., LL.D., Pediatrics.
Watt Weems Eagle, A.B., M.D., Otolaryngology.
George Burton Ferguson, M.S., M.D., Bronchoscopy.
Wiley Davis Forbus, A.B., M.D., Pathology.
Robert Williams Graves, B.S., M.A., M.D., Neurology.
Edwin Crowell Hamblen, B.S., M.D., Endocrinology.
Frederic M. Hanes, A.B., A.M., M.D., D.Sc., Medicine.
Oscar Carl Edvard Hansen-Prüss, A.B., M.D., Hematology and Allergy.
Deryl Hart, A.B., M.A., M.D., Surgery.
Richard Sherman Lyman, B.A., M.D., Neuropsychiatry.

* On active duty; U. S. Army.

William McNeal Nicholson, A.B., M.D., Diseases of Metabolism. William Alexander Perlzweig, B.S., A.M., Ph.D., Biochemistry. Robert James Reeves, A.B., M.D., Radiology.
Julian Meade Ruffin, A.B., M.A., M.D., Gastro-enterology.
David Tillerson Smith, A.B., M.D., Bacteriology.
Barnes Woodhall, A.B., M.D., Neurosurgery.

## Associate Staff

Norman Francis Conant, B.S., A.M., Ph.D., Mycology.
Nancy Bowman Wise Branning, A.B., M.D., Medicine.
MacDonald Dick, A.B., M.A., M.D., Medicine.
Richard H. Follis, B.S., M.D., Pathology.
Herbert Junius Fox, A.B., M.D., Medicine.
Snowden Cowman Hall, A.B., M.D., Medicine.
James Paisley Hendrix, B.S., M.A., M.D., Medicine.
Christopher Johnston, A.B., M.D., Medicine.
*Thomas T. Jones, A.B., M.D., Medicine.
Walter Kempner, M.D., Medicine.
Paul Pressly McCain, A.B., M.D., Medicine.
isaac H. Manning, Jr., A.B., M.D., Medicine.
Donald Stover Martin, A.B., M.D., Medicine and Bacteriology.
Elijah Eugene Menefee, Jr., B.S., M.D., Medicine.
Edward Stewart Orgain, M.D., Medicine.
Elbert Lapsley Persons, A.B., M.D., Medicine.
O. Norris Smith, B.A., M.D., Medicine.

Joseph Blackburn Stevens, B.S., M.D., Medicine.
Paul Gerhard Reque, M.D., Dermatology and Syphilology.
Frederick Harrison Hesser, A.B., M.D., Neurology.
Mary Alverta Poston, A.M., Bacteriology.
Joseph W. Beard, B.S., M.D., Surgery.
Clarence Ellsworth Gardner, Jr., A.B., M.D., Surgery'
Keith S. Grimson, B.A., B.S., M.D., Surgery.
Durwood Lee Loyell, M.D., Surgery.
Kenneth LeRoy Pickerell, M.D., Surgery.
Herman Max Schiebel, A.B., M.D., Surgery.
$\dagger$ Josiah Charles Trent, A.B., M.D., Surgery.
Guy Leary Odom, M.D., Neurosurgery.
Robert Beverly Raney, A.B., M.D., Orthopaedics.
Frederick W. Stocker, M.D., Ophthalmology.
John Essary Dees, B.S., M.D., Urology.
Louis Carroll Roberts, A.B., M.D., Urology.
Eleanor Beamer Easley, B.A., M.A., M.D., Obstetrics and Gynecology.
IVilliam Alexander Graham, A.B., M.D., Obstetrics and Gynecology.
Robert Alexander Ross, B.S., M.D., Obstetrics and Gynecology.
Walter Lee Thomas, Jr., A.B., M.A., M.D., Obstetrics and Gynecology.
Clarence Daniel Davis, S.B., M.D., Endocrinology.
Jay Morris Arena, B.S., M.D., Pediatrics.
Atala Thayer Scudder Davison, A.B., M.D., Pediatrics.
Susan Coons Dees, A.B., M.S., M.D., Pediatrics
Jerome Sylvan Harris, A.B., M.D., Pediatrics.
Arthur Hill London, Jr., A.B., M.D., Pediatrics.
Angus McBryde, B.S., M.D., Pediatrics.
Harvey Grant Taylor, A.B., A.M., M.D., Pediatrics.
George Jay Baylin, A.B., M.D., Radiology.
Cyrus Conrad Erickson, B.S., B.M., M.D., Pathology.
Haywood Maurice Taylor, B.S., M.S., Ph.D., Biochemistry and To.ricology.
*Linus Matthew Edwards, Jr., D.D.S., Dentistry'.
*Norman F. Ross, D.D.S., Dentistry.
Alexandra Adler, M.D., Neuropsychiatry.

[^1]Leo Alexander, A.B., M.D., Neuropsychiatry.
*Raymond S. Crispell, A.B., M.D., Ncuropsychiatry.
$\dagger$ Robert L. Garrard, A.B., M.S., B.S., M.D., Neuropsychiatry.
Maurice H. Greenhill, A.B., M.D., Neuropsychiatry.
Hans Löwenbach, M.D., Neuropsychiatry.
Robert Burke Suitt, M.D., Neuropsychiatry.
Charlotte Frisch Walker, M.D., Ncuropsychiatry.

## Resident Staff

## Residents 1945-1946

Frank Cutchin Bone, A.B. and M.D., Duke, 1940 and 1943; Medicinc.
Alan Davidson, A.B., Dartmouth, 1939 ; M.D., Vermont, 1943 ; Otolaryngology and Ophthalmology.
John Alexander Davidson, A.B., Dartmouth, 1933; M.D., Vermont, 1942; Urology.
Laivrence Elliott Gordon, Jr., A.B., Emory and Henry, 1939; M.D.. Duke, 1943; Obstetrics and Gynecology.
Gameel Byron Hodge, B.S., Wofford, 1938; M.D., Vanderhilt, 1942 ; Surgery.
William Fredwin Hollister, M.D.. Duke, 1938; Surgcry.
Beatrice Hart Kuhn, B.A., Swarthmore, 1939; M.D., Duke, 1942; Dcrmatology and Syphilology.
Howard James Schaubel, A.B., Hope, 1938; M.D., Michigan, 1942; Orthopaedics.
John Arthur Segerson, A.B., Holy Cross, 1940; M.D., Rochester, 1943 ; Neurology.
Luther Bradford Waters, Jr., B.A., Hampden-Sydney, 1935; M.D., Med. Coll. of Virginia, 1941 ; Radiology.

Assistant Residents, 1945-1946
Robert James Ativell, A.B. and M.D., Duke, 1941 and 1944: Medicinc.
Horace Mitchell Baker, Jr., A.B., North Carolina, 1941 ; M.D., Duke, 1944 : Surgery.
Marie Baldwin, A.B., Erskine, 1924 ; M.D., South Carolina, 1929; Neuropsychiatry.
Eugene Callaway, Jr., M.D., Virginia, 1943; Otolaryngology and Ophthalmology.
John Pope Collins, A.B. and M.D., Duke, 1941 and 1944 ; Surgery.
Richard Grigsby Connar, A.B., and M.D., Duke, 1941 and 1944; Medicinc.
Elizabeth Conrad, A.B., Duke, 1940 ; M.D.. Johns Hopkins. 1943; Pcdiatrics.
Robert Thomas Cronk, A.B., Tulsa, 1941 ; M.D., Duke, 1944 ; Otolaryngology and Ophthalmology.
Charles Kendall Donegan, M.D., Duke, 1943; Medicinc.
Henry Martin Dratz, M.D., Duke, 1944; Surgery.
Philip E. Getscher, M.D., Nebraska, 1944; Orthopaedics.
John Capers Glenn, M.D., Duke, 1943 ; Radiology.
James Laivrence Hansen, M.D.. Duke, 1944 : Pathology.
Irene Anderson Harris, B.S., Northeastern Teachers, 1935 ; M.D., Oklahoma, 1939; Neuropsychiatry.
James Mayhew Ingram, M.D., Duke, 1943 ; Obstetrics and Gynccology.
Charles Warren Irvin. Jr., M.D., Duke. 1944 ; Medicine.
George Wallace Kernodle, A.B., Elon, 1941 ; M.D., Duke, 1944 ; Pediatrics.
Robert Bruce Kubek, A.B. and M.D., Duke, 1941 and 1944 ; Medicine.
David Jay McCulloch, M.D., Duke, 1942; Radiology.
William Wailes Magruder, M.D., Duke, 1944; Neuropsychiatry.
Jane Gregory Marrow, A.B., Sweet Briar, 1938; M.D. Duke, 1943; Obstetrics and Gynecology.
Francts Anthony Marzoni, A.B. and M.D., Vanderbilt, 1942 and 1944 ; Pathology.
Robert Jennings Murphy, Jr., B.S., State Teachers, Tenn., 1936; M.D., Vanderbilt, 1940: Pcdiatrics.

[^2]Keith Millner Oliver, B.S., Virginia Polytechnic Institute, 1939; M.D., Duke, 1943; Obstctrics and Gynecology'.
Leonard Palumbo, M.D., Duke, 1944; Obstetrics and Gynecology.
Raymond W. Postlethwait, B.S., Virginia, 1935 ; M.D., Duke, 1937 ; Surgery'.
Allen D. Puppel, B.A. and M.D., Ohio, 1936 and 1940; Urology.
Mack Rayburn, B.A., Vanderbilt, 1939; M.D., Louisville, 1943; Otolaryngology and Ophthalmology.
Marc James Reardon, A.B. and M.D., Cincinnati, 1938 and 1942 ; Surgery.
Charles Emmett Richards, Jr., A.B., Dartmouth, 1936; M.D., Western Reserve, 1939 ; Urology.
Fathleen Amelia Riley, B.S., Furman, 1937 ; M.D., South Carolina, 1941 ; Dermatology and Syphilology.
William Warner Shingleton, A.B., Atlantic-Christian, 1939; M.D., Bowman Gray, 1943 ; Surgery.
Thomas Gardiner Thurston, B.S., Davidson, 1937; M.D., Harvard, 1941 ; Radiology.
Bertram Fairley Townsend, A.B. and M.D., Duke, 1941 and 1944; Obstctrics and Gynecology.
Edward Alton Tyler, M.D., Virginia, 1944 ; Neuropsychiatry.
Carlton Gunter Watkins, A.B., North Carolina, 1939; M.D., Washington, 1943; Pcdiatrics.
Karl Arden Youngstrom, A.B., M.A. and Ph.D., Kansas, 1930, 1932 and 1937; M.D., Duke, 1944 ; Radiology.

## Interns, 1945-1946

Woodrow Batten, B.S., Wake Forest, 1942; M.D., Bowman Gray, 1944 ; Medicinc.
Byron Michel Bloor, M.D., Duke, 1945 ; Surgery.
Henry Toole Clark, Jr., A.B., North Carolina, 1937 ; M.D., Rochester, 1944 ; Medicine.
Hugh Dortch, Jr., B.S., North Carolina, 1943 ; M.D., Duke. 1945; Pathology.
Elizabeth Jean Dubs, A.B. and M.D., Duke, 1942 and 1945 ; Pcdiatrics.
John Richard Emlet, M.D., Duke, 1945 ; Surgery.
Frank Reavis Fleming, A.B., North Carolina, 1931 ; B.S., Wake Forest, 1933; M.D., Jefferson, 1935; Otolaryngology and Ophthalmology.
Priscilla Lowell Foote, A.B., Vassar. 1941 ; M.D., Rochester, 1945 : Medicine.
Frederick Michael Hanson, M.D., Duke, 1945; Obstetrics and Gynecology.
Myers Hampton Hicks, B.S., Furman, 1942; M.D., Virginia, 1945; Surgery.
James Blaine Holloway, Jr., B.S. and M.D., Yale, 1943 and 1945; Surgery.
Bruce Charles Holman, M.D., Duke, 1945; Surgery.
Lawrence Byerly Holt, A.B., High Point, 1940 ; B.S., Wake Forest, 1942 ; M.D., Bowman Gray, 1945; Otolaryngology and Ophthalmology.

Louis Moffitt Howell, B.S., Florida, 1942; M.D., Duke, 1945; Surgery.
Stanley Jay Kallman, A.B., North Carolina, 1942; M. D., Duke, 1945 ; Pathology.
Ullin Whitney Leavell, Jr., M.D., Duke, 1945 ; Pathology.
William Figgatt Lovell, A.B., and M.D., Duke, 1942 and 1945 ; Medicine.
James Thompson Metzger, B.S., Pittsburgh, 1945; M.D., Duke, 1945; Surgery.
Oscar McLendon Mims, M.D., Duke. 1945; Medicinc.
Tames Donaldson Moody, A.B. and M.D.. Duke, 1940 and 1944 ; Surgery.
William Frederick O'Connell, M.D., Yale, 1945 ; Pediatrics.
Richiard Milton Padison. M.D.. Duke, 1945 ; Surgery.
Herbert William Park, III, B.S., North Carolina, 1943 ; M.D., Duke, 1945 ; Surgery.
Benjamin Jackson Philips, Jr., B.S., Davidson, 1942; M.D., Duke, 1945 ; Obstetrics and Gynecology.
Grover Duckett Poole, M.D., Duke, 1945 ; Mcdicine.
Robert Barclay Ragland, M.D., Duke, 1945 ; Pediatrics.
Clarence Lee Ruffin, M.D.. Duke, 1945; Obstetrics and Gynccology.
Joseph Harold St. John, B.S. and M.D., Duke, 1945 ; Medicinc.
Roland E. Schmidt, B.A., Washington, 1939; M.D., Chicago, 1945 ; Pediatrics.

Charles D. Sherman, B.S., Florida, 1942; M.D., Johns Hopkins, 1945; Surgery.
Frederick Harvey Taylor, B.S., Guilford. 1942: M.D., Duke, 1945 ; Medicine. Paul Claytor Thompson, M.D., Duke, 1945; Orthopaedics.
George Clifford Thorne, M.D., Southwestern, 1945; Pediatrics.
Bennie Vatz, A.B.. North Carolina. 1942; M.D., Duke, 1945 ; Medicine.
Robert Clifford Wulfman, M.D., Duke, 1945 ; Surgery.


(Chairman)

K. S. Grimson (Chairman)
J. W. Beard (Chairman)

## COMMITTEE ON INTERNSHIPS

W. C. Davison

## beaumont committee

Deryl. Hart
D. T. $\mathrm{Smith}_{\mathrm{Mi}}$
W. A. Perlzweig

Committee on student technicians
D. T. SMaith
J. M. Ruffin (Chairman)
J. L. Calla way (Chairman)
D. S. Martin H. M. Taylor
dispensary committee
R. A. Ross
C. E. Gardner, Jk.
F. R. Porter

COMMITTEE ON hospital RECORDS
L. D. Baker F. R. Porter

Jessie Harned Bufkin

COMMITTEE ON medical art and illustration
J. W. Beard (Chairman)
J. E. Markee

COMMITTEE ON PHYSICAL THERAPY
L. D. Baker
(Chairman)

* On leave of absence.
H. C. Mickey
Alice M. Baldwin

Helen L. Kaiser R. S. Lyman

# REGIONAL REPRESENTATIVES OF THE COMMITTEE ON ADMISSION 

| Birmingham, Alabama | M. Y. Dabney |
| :---: | :---: |
| Phoenix, Arizona | Charles B. Palmer |
| Los Angeles, Californi | J. Morris Slemons |
| San Francisco, California | * Emile F. Holman |
| San Francisco, California | Charles H. Danforth |
| Montreal, Canada | Wilder Penfield |
| Denver, Colorado | .Franklin P. Gegenbach |
| New Haven, Connecticut | Allen K. Poole |
| Jacksonville, Florida | Edward Jelks |
| Atlanta, Georgia. | James E. Paullin |
| Savannah, Georgia | Victor H. Bassett |
| Chicago, Illinois | . George H. Gardner |
| Iowa City, Iowa | Philip C. Jeans |
| Wichita, Kansas | Thomas Jager |
| Louisville, Kentucky | $\dagger$ Malcolm D. Thompson |
| Louisville, Kentucky | S. I. Korn ha user |
| New Orleans, Louisia | Philip H. Jones, Jr. |
| Baltimore, Maryland | $\dagger$ John T. King, Jr. |
| Baltimore, Marylan | .George W. Corner |
| Boston, Massachusetts | ¢Marshall N. Fulton |
| Boston, Massachusetts | John A. V. Davies |
| Detroit, Michigan. | .Roy D. McClure |
| Kansas City, Mis | Ralph H. Major |
| St. Louis, Missour | Hugh McCulloch |
| Butte, Montana. | Caroline McGill |
| New York, New York | Leonard T. Davidson |
| New York, New York | Lawrence S. Kubie |
| New York, New York | James B. Murphy |
| New York, New York | Bertram J. Sanger |
| Rochester, New York | .William S. McCann |
| Syracuse, New York | .Philip B. Armstrong |
| Davidson, North Carolina | John W. MacConnell |
| Cleveland, Ohio. | B. S. Kline |
| Columbus, Ohio | Charles A. Doan |
| Dayton, Ohio. | .R. L. Johnston |
| Toledo, Ohio. | John L. Stifel |
| Warren, Ohio | R. D. Herlinger |
| Oklahoma City, Oklahoma | William M. Taylor |
| Portland, Oregon. | .Karl H. Martzloff |
| Johnstown, Pennsylvania | W. Frederic Mayer |
| Palmerton, Pennsylvania | R. P. Batchelor |
| Philadelphia, Pennsylvani | John T. Bauer |
| Pittsburgh, Pennsylvania. | Davenport Hooker |
| Scranton, Pennsylvania. | George A. Clark |
| Charleston, South Carolin | $\dagger$ Edward F. Parker, Jr. |
| Charleston, South Carolin | J. I. Waring |
| Columbia, South Carolina | William Weston |
| Columbia, South Carolina | James H. Gibbes |
| Chattanooga, Tennessee. | †Richard Van Fletcher |
| Memphis, Tennessee. | Raphael E. Semmes |
| Nashville, Tennessee. | Sam L. Clark |
| Sewance, Tennessee. | .Henry T. Kirby-Smith |
| Fort Worth, Texas | Khleber H. Beall |
| San Antonio, Texas | P. I. Nixon |
| Salt Lake City, Utah | Alfred J. Ridges |
| Charlottesville, Virginia | Henry B. Mulholland |
| Richmond, Virginia | I. A. Bigger |
| Roanoke, Virginia. | Hugh H. Trout |
| Seattle, Washington | R. D. Forbes |
| Spokane, Washington | E. Rex Speelmon |
| Huntington, West Virginia | *George M. Lyon |
| Huntington, West Virginia | R. M. Wylie |
| Madison, Wisconsin. | Walter E. Sullivan |

[^3]
## GENERAL STATEMENT

Duke University School of Medicine and Duke Hospital were established in 1930, through the munificent gift of the late James B. Duke. The School of Medicine has been planned to insure the greatest correlation between the various departments. These facilities are available also for students who are studying for degrees other than that of Doctor of Medicine. The School of Medicine has been approved as Class A by the American Medical Association and is also a member of the Association of the American Medical Colleges. On January 1, 1946, two hundred and eighty-two students were enrolled.

## FACILITIES OF THE HOSPITAL

Duke Hospital, an integral part of Duke University School of Medicine, has every modern convenience for the diagnosis, proper care, welfare and comfort of the patients, both private and charity, white and colored, whether they come from Durham or from a distance. It has 604 beds, including 50 bassinets for newborn infants. Medicine, including dermatology and neurology, has 75 ward beds; surgery, including urology, otolaryngology, ophthalmology, and orthopaedics, 145 ward beds; $o b-$ stetrics, including gynecology, 56, and 50 bassinets; neuropsychiatry, 23 ; and pediatrics, 40 . There are 212 private rooms and semiprivate cubicles, 7 air-conditioned operating rooms, 4 obstetric delivery rooms, and ward and student laboratories: Offices and examining rooms for members of the Medical Faculty are located in the Hospital. The Hospital has been approved for internships and residencies by the Council on Medical Education and Hospitals of the American Medical Association, and the American College of Surgeons.

Duke Hospital and its Out-Patient Clinic were opened for patients on July 21, 1930. Two hundred and fifty-six thousand, five hundred individuals have been examined, diagnosed, and treated up to June 30, 1945. The average daily census of hospital patients during the past year was 438 ; 79,922 visits were made to the Out-Patient Clinic during the same period. Fifteen per cent of the patients come from within a radius of twenty miles, the remaining 85 per cent come from the other 99 counties in North Carolina and from 36 other states and 3 foreign countries. The average distance traveled by the patients is more than seventy miles.

Every effort is being made to co-operate with the medical profession, and patients are asked to return to the physicians who referred them to the Hospital and Clinic.

- Pubiic Ward Patients. Duke Hospital cannot give charity treatment to all who apply; therefore, patients whose incomes are less than $\$ 15$ per week should apply to the Out-Patient Division of the Duke Clinic on the days and hours listed below. The hospital fee consists of four classes of flat daily rates (private, semiprivate, semicharity, and charity), which cover all hospital costs, including those usually charged as extras, thereby making it possible to estimate, in advance, the probable cost of
hospitalization and to adjust the bill to the patient's resources. This policy of basing the rate upon the amount the patient can pay, rather than on the actual cost, has enabled many, who, under the former system, unnecessarily were objects of charity, to maintain their self-respect by contributing a fixed sum within their means. The actual cost to the Hospital for public care is over $\$ 8.00$ daily; but in order to meet the greatly increased demand for charity work, Duke Hospital adopted the co-operative plan of paying half the cost. provided the patient's local welfare department co-operated by paying the other half. This is in accordance with Mr. Duke's plan that the communities share, with the Duke Endowment. the burclen of charity patients, instead of either carrying all of it. Although 50 per cent of the patients pay less than cost, the revenue from patients, their friends, the counties, and the Duke Endowment provides approximately half of their expenses. By having every patient contribute in accordance with his means, the balance, which Duke Hospital gives in charity or less than cost service, has been spread over a large number of people. Instead of giving complete and pauperizing charity care to four thousand patients, the Hospital has been able to assist approximately seven thousand individuals annually to obtain medical care for which they could not pay the full cost.

Out-Patient Clinic. The general policy of admitting patients to the Out-Patient Clinic and Wards is to consider carefully their financial and social status; income and size of family, special responsibilities. and the probable cost of treatment, all being weighed in determining admission. A married patient, for instance, with an income of less than $\$ 15$ per week is considered admissible to the Public Wards or Out-Patient Clinic for ordinary conditions: the income limit, of course, varying according to the other factors which affect the patient's financial status. Those who are able to pay the ordinary fees of consultants and specialists are not admitted to the Out-Patient Clinic, but may make arrangements through their own physicians for examinations in the Private Diagnostic Clinic.

Schedule of the Out-Patient Clinic. Closed on Saturdays, Sundays, and holidays. Patients must register at the times listed. Appointments should be made in advance.

Registration hours : 12:00 M.. unless otherwise noted below.
General Medicine
reneral Surgery
Neurosurgery
Obstetrics and Gyynecology (Women's Diseases)
Chilrren's Diseases*
Skin Diseases
Eye
Ear, Nose, and Throat
Bone and Joint Diseases
Tumors
Urinary and Kidney Diseases
Monday: Tucsday. Weducsday, Thursday, and Friday.

[^4]Dentistry: Monday at 12:00 M.
Cystoscopy: Weducsday and Thursduy, 1:30-5:00 P.M.*
Syphilis: Children and Adults, Wednesday at 9:00 A.M.*
$\left.\begin{array}{l}\text { Asthma and Hay Fever } \\ \text { Diabetes }\end{array}\right\}$ Tuesday at 9:00 A.M.*
Infant Feeding $\}$ White, Wednesday at 9:00 A.M.
Fracture: Friday at 9:00 A.M. to Noon.*
Pneumothorax (chest and tubercular) : Thursday at 9:00 A.M.*
Endocrine (sterility, menstrual disorders, etc.) : Tucsday, Wednesday, and Thursday at 8:30 A.M.-12:00 M.*
Hematology (diseases of the blood) : Monday at 1:00 P.M.*
Bronchoscopy: Monday at 9:00 A.M.*
Neurology: Monday at 9:00 A.M.*
Neuropsychiatry.*
The Out-Patient Clinic charge is from $\$ 3.00$ to $\$ 10.00$ for the first visit to any department, plus the actual cost of x-rays and other materials used. For the return visits to the regular clinics, the rate is from fifty cents to one dollar for consultation or completion of examination: and $\$ 2.00$ for patients who have not been instructed to return, but who do so on their own initiative. In order to co-operate with the medical profession, anyone who wishes to attend the Out-Patient Clinic should consult, and bring a letter from. his or her own physician. Delay will be avoided if appointments are made in advance.

Private Patients. Patients who can pay the ward and private rates may at any time, through their family physicians, in consultation with any member of the Hospital Staff, make reservations by telephoning to the Admitting Office. Appointments for private examinations and treatments may be made in advance by telephoning to the Private Diagnostic Clinic.

Private Diagnostic Clinic. This division was organized to coordinate the diagnostic studies, and to give better care for the complicated problems arising in the examinations of private patients. The Clinical Staff of Duke Hospital and School of Medicine forms the professional staff of this clinic, while the financial side is handled by a businessmanager. The offices and examining rooms are in Duke Hospital, and all the laboratory and diagnostic facilities of the Hospital and School of Medicine are utilized by the Clinic. A complete diagnostic survey usually requires from one to four days, and the charges generally range from $\$ 15$ to $\$ 75$, the amount depending on the work required and on the financial condition of the patient. As soon as each examination has been completed, a full report describing the results of the diagnostic studies is forwarded to the physician who referred the patient.

[^5]SCHOOL OF NURSING
Margaret I. Pinkerton, B.S., R.N., Dean of the School of Nursing and Professor of Nursing.
Ione O. Slough, R.N., B.S., Assistant Professor of Nursing Education and Director of Adzanced Program in Psychiatric Nursing.
Carol Poole, R.N., B.S., Instructor in Nursing Education.
*Julia E. White, A.B., R.N., Assistant to the Dean.
Elsie Moss, R.N., Assistant to the Dean.
Hilda Claire Burnham, Instructor in Principles and Practice of Nursing.
The next class of students will be admitted to the Duke University School of Nursing on September 26, 1946, but applications will be considered at any time. Information about the entrance and other requirements, length of course, tuition fees, application forms, and bulletins may be obtained by writing to the Dean of the School of Nursing, Duke University, Durham, N. C.

## SCHOOL OF DIETETICS

Elsie W. Martin, A.B., M.S., Professor of Dietetics. Jo Hutchinson, B.S., Therapeutic Dietitian.
Eleanor Jean Dail, B.S., Assistant Therapeutic Dietitian.
Carolyn Jones, B. S., Assistant Therapeutic Dietition.
Frances Waters, B.S., Administrative Dietitian.
Erma Lee Adams, A.B., Recorder.
Jane Cole, B.S., Assistant Administrative Dietitian.
Seleta Wiseman, B.S., Assistant Administrative Dietitian.
Majorie B. Keeling, B.S., Assistant Administrative Dietitian.
Sara Sutherland, B.S., Assistant Administrative Dietitian.
In addition to the dietetic training of the students of the Schools of Medicine and Nursing, thirteen student dietitians may be admitted to the School of Dietetics and given the certificate of graduate dietitian after the successful completion of one year. The entrance requirements are a Bachelor's degree from an approved university or college, with majors in nutrition and institutional management, and the courses in chemistry, biology, social science, and education recommended by the American Dietetic Association. The course for student dietitians provides instruction in all phases of hospital and institutional dietetics, including experience from the buying and storage of food to its service to the patients according to the physician's orders. In addition, if applying for graduate credit, they will be required to complete the courses in biochemistry, nutrition, and selected portions of physiology as given to the medical students.

The course starts the first of September. If a student receives advanced credit, a tuition fee of $\$ 50$ is charged. All students pay a registration fee of $\$ 10$ at the time of appointment; maintenance is provided. More detailed information and application blanks may be obtained from the Professor of Dietetics, Duke University School of Dietetics, Durham, N. C.

## HOSPITAL ADMINISTRATION

H. C. Mickey, B.B.A., Superintendent.
F. R. Porter, A.B., Assistant Superintendent.

De Witt Wright, B.S., J.D., Assistant Superintendent.

[^6]George Bokinsky, A.B., Night Superintendent. Marjorie G. Ross, A.B., Personnel Officer.
C. H. Совв, Ph.G., Business Manager, Medical Division.

Iris R. Pritchard, Assistant Business Manager, Medical Division.
E. S. Raper, A.B., Business Manager, Surgical Division.
R. N. Crenshaw, Assistant Business Manager, Surgical Division.
*J. G. Brothers, A.B., Assistant in Administration.
*J. Kent Davis, A.B., Assistant in Administration.
*S. O. Gilmer, A.B., Assistant in Administration.
*D. F. Peterson, A.B., Assistant in Administration.
Ten internships in hospital administration leading to a certificate will be available to university graduates whose character, tact, and ability for leadership are good, and whose academic standing is high. These internships are of two or three years' duration and pay a small salary in addition to room, board, and laundry. Vacations of two weeks are allowed at the beginning of the second and third years of internship.

The instruction is practical rather than theoretical in emphasis. The interns are rotated through six different assistant administrative positions in the Hospital. There is also a weekly seminar lasting two hours.

During these two or three years, the interns also register in the Graduate School of Duke University, and receive the A.M. degree after the successful completion of a thesis and twenty-four semester hours of university courses in various fields. Further information may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C.

## COURSE IN LABORATORY TECHNIQUE

David T. Smith, A.B., M.D., Professor of Bacteriology.
Haywood M. Taylor, B.S., M.S., Ph.D., Associate Professor of Biochemistry. Oscar C. E. Hansen-Prüss, A.B., M.D., Associate Professor of Medicine. Donald S. Martin, A.B., M.D., Associate Professor of Bacteriology and Mycology.
Mary A. Poston, M.A., Instructor in Bacteriology.
Hoyle W. Craig, Technical Instructor in Bacteriology. Preston W. Smith, Technical Instructor in Hematology. louise W. Adams, A.B., Technical Assistant in Hematology: Minnie A. Forney, M.T., Technical Assistant in Biochemistry.

The course in laboratory technique includes training in blood chemistry, clinical microscopy, bacteriology, serology, basal metabolism, and histopathological technique. The course is approved by the Registry of Technicians of the American Society of Clinical Pathologists, and lasts eighteen months. The next class will start October 7, 1946. The entrance requirements are two years of approved college work, including credits in biology or zoology, and inorganic, analytic and organic chemistry. The registration fee is $\$ 75$, and there are no additional charges, except for breakage. The students live in town at their own expense. Applications may be sent to Dr. David T. Smith, Duke Hospital, Durham, N. C.

## ANESTHESIA

Ruth C. Martin, B.A., M.D., Associate in Anesthesiology, in Charge of Division of Anesthesiology.
Mary H. Snively, R.N., Associate in Anesthesiology, in Charge of Nurse Anesthesiology.

* On active duty; U. S. Army.

Evelin R. Aein, R.N., Instructor in Auesthesiology':
A. Frances Rowland, R.N., Instructor in Aucsthesiologi: Mary B. Camprell, R.N., Assistant in Aucsthesiology.
Hortense E. Pamock, R.N., Assistant in Anesthesiology.
Martha Brown, R.N.. Assistant in Ancsthesiology.
Mary J. Delo, R.N., Assistaut in Aucsthesiology.
A twelve months' course in anesthesiology is offered to eight registered nurses each year. Appointments are made on the basis of individual merit and qualifications. Classes begin each Jamary 15. April 15, July 15 and October 15. A tuition fee of $\$ 100.00$ covers all necessary expenses as full maintenance is provided for each appointee. The training includes two hundred hours of theory of anesthesiology. Practical experience, averaging seven hmodred and fifty anesthetics, is given in the administration of all agents and techniques in modern usage. A graduate of this course is eligible for membership in the American Association of Nurse Anesthetists. Additional information concerning the training, and application forms may be ohtained from Miss Mary H. Snively, Duke Hospital, Durham, N. C.

## MEDICAL SOCIAL SERVICE

Maude McCracken, A.B.. M.S., Instructor in Mcdical Social Scrzicc.
Frances Cocmran, A.B., M.S., Assistant in Medical Social Serzicc. Josephine Cooley, A.B., M.S., Assistant in Medical Social Servicc. Patricia Roberts, A.B., M.S., Assistant in Medical Social Service. Clara Sanford, A.B., M.S., Assistant in Medical Social Servicc.

Medical Social case-work service is offered to patients referred by persomel within the Hospital, and by interested individuals and health and welfare agencies outside of the Hospital. Assistance and advice in conmection with the problems presented are available to the members of the Staff and referring agencies.

The division also assists in teaching social and envirommental aspects of illness and medical care through consultations and lectures to the students of the Scliools of Medicine and Nursing. In addition, it serves as an agency for supervised field work for students of the Graduate School of the University of North Carolina. Further information concerning training for advanced students may be obtained from the Social Service Division, Duke Hospital, Durham, N. C.

## RECORD LIBRARY

## Jessie Harnen Bufkin, R.N., R.R.L., Mcdical Record Librarian.

A course for the training of medical record lib arians. which has been given full approval by the American Association of Merlical Record Librarians, and the American Medical Association, includes all detai!s of the theory and practice of clinical record library methods. The length of the training is twelve months. The tuition fee is $\$ 100$ and does not include maintenance. Applications may be made to the Medical Record Librarian, Duke Hospital. Durham, N. C.

## PHYSICAL THERAPY

Lfnox D. Baker, M.D., Chairman of Committec on Physical Therapy.
Helen Louise Kaiser, R.P.T.T., Instructor in Physical Therafy, in Charge of Dizision of Physical Therapy:
Mary C. Singleton, B.S., R.P.T.T., Assistant in Physical Therapy. Nanct Sehmann, B.S., R.P.T.T., Assistant in Physical Therapy. Alice C. Hendricks, B.S.. R.P.T.T., Assistant in Physical Therapy. Stella W. Roebuck, B.M., Assistant in Physical Therapy. Bettie A. Runner, R.P.T.T., Assistant in Physical Therapy.

A twelve months' course in physical therapy is offered for men and women graduates of accredited schools of physical education or nursing. and for selected applicants who have completed sixty college semester hours including credit in the biological sciences, physics, chemistry and psychology. The curriculum provides instruction in anatomy, physiology, kinesiology, pathology, psychology. electrotherapy. neuropsychiatry and practical pathology. Instruction in the clinical subjects is given by memhers of the faculty of the School of Medicine. Practical training will be given at Duke Hospital and affiliated institutions and includes supervision of orthopaedic problems in the Durham Public Schools. Students are accepted twice yearly, in September and March. The tuition fee is $\$ 200.00$, and does not include maintenance. A certificate is awarded upon successful completion of the course. In addition to the training of physical therapy students, courses are given to the students of the Schools of Medicine and Nursing. Further information and application blanks may be obtained from Miss Helen L. Kaiser, Duke Hospital, Durham, N. C.

## POSTGRADUATE STUDY

The School of Medicine is not limited to the training of its own students and Staff, but extends to the members of the medical profession the benefit of everything it has. Graduates in medicine are welcomed especially at the various clinics and demonstrations in medicine, surgery, obstetrics, and other specialties, which are held from 9:30 A.M. to 12:30 P.M. each Saturday and at the clinical-pathological conferences at 5 P.M. on alternate Fridays, as well as at the daily ward-rounds in the mornings and the out-patient clinics in the afternoons. They can start at any time and remain as long as they wish. Additional special work in any department for a period of not less than three months may be arranged by consultation with the head of the department concerned. Board and room can be obtained for $\$ 12$ to $\$ 20$ per week. (Some rooms may be obtained on the university campus by writing to Mr. W. E. Whitford, Duke University, Durham, N. C.. at least a week in advance. These rooms are provided with furniture, heat, light, and the care of rooms: each occupant furnishes his own blankets, sheets, towels, pillow cases and pillows.) A certain number of residencies are available at Duke Hospital in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, pathology, and biochemistry. Further information can be obtained by writing to the Dean.

Returning veterans are requested to register on arrival with Miss

Margaret Jones, Room 131, who will assist them in obtaining the benefits of the G. I. Bill of Rights which will provide tuition and also $\$ 50$ per month for maintenance ( $\$ 75$ if married).

## INTERNSHIPS AND RESIDENCES

Internships of twelve months' duration with room, board, laundry, and uniforms furnished, but without salary, are available in medicine, surgery (including general surgery, urology, and orthopaedics), orthopaedics, urology, otolaryngology-ophthalmology, dentistry, obstetrics and gynecology, endocrinology, pediatrics, newropsychiatry, and pathology, commencing April 1, 1946, January 1, 1947 and July 1, 1947.

Application blanks for all internships, which must be returned at least three months before the beginning of the internship desired, may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C. Graduates of any Class A medical school are eligible for internships.

After the completion of an internship in Duke Hospital or in another acceptable hospital, a certain number may be appointed as assistant residents in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, pathology, biochemistry, or the Student Health Service, or as fellows of the Private Diagnostic Clinic, at a salary of \$250 to $\$ 500$ per year with maintenance, and eventually may be promoted to the residency in the various departments or subdepartments of the Hospital at an annual salary of $\$ 500$ to $\$ 1,000$ with maintenance. Applications should be made to the head of the department concerned.

The Hospital and School of Medicine are an integral part of the Duke University campus, and its educational, recreational, and athletic facilities are available for the Resident Staff.

The present Resident Staff of seventy consists of a resident, five assistant residents, and nine interns in medicine; an assistant resident in neurology; an assistant resident in dermatology and syphilology; two assistant residents, and an intern in neuropsychiatry; a resident, five assistant residents, and twelve interns in surgery (the five assistant residents are assigned in rotation to general surgery, orthopaedics, and pathology) ; one resident, two assistant residents, and one intern in otolaryngology and opthalmology; a resident, and an assistant resident in orthopaedics; a resident and an assistant resident in urology; a resident, five assistant residents, and three interns in obstetrics and gynecology; an intern in endocrinology; two assistant residents and five interns in pediatrics; a resident and an assistant resident in radiology; two assistant residents and three interns in pathology.

## LIBRARY

[^7]In addition to the General Library of Duke University and the departmental libraries of biology, chemistry, physics, etc., which have 680,228
volumes available for medical students, Duke Hospital Library contains 42,571 volumes of American and foreign medical literature and subscribes to 440 current American and foreign medical and other scientific journals. These books and journals are available daily from 8:30 A.M. to $11: 00$ P.M. for the students, nurses, staff, and medical profession.

## MEDICAL CARE

## Joseph A. Speed, Physician in Charge.

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated medical students of the University for the health fee of $\$ 3.33$ per quarter. This service is under the direction of the Physician in Charge with the co-operation of the Staff of Duke Hospital. It includes hospitalization (limited to thirty days), medical and surgical care, drugs, dressings, x-ray studies, and ward but not special nursing. A charge for board is made at the same rate as in the university dining halls, and student meal tickets for these halls are accepted in payment of this board. Refraction of eyes and treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernia, elective surgery, chronic skin conditions, endocrine disturbances, etc., or accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must be borne by the patient.

## STUDENT GOVERNMENT

The members of the student body elect an Honor Council, in which each ciass is represented. It is the duty of the Honor Council to hear all cases involving breaches of conduct on the part of members of the student body. All new students entering the School are reguired to comply with this system of government.

## APPLICATION FOR ADMISSION

Application forms may be obtained by writing to the Committee on Admission, Duke University School of Medicine. Durham, N. C. A check or post office money order for $\$ 5$ payable to Duke University School of Medicine must accompany each application. This is not refundable. If further information is required after the Committee has studied the completed application, a personal interview with the Committee on Adınission or a Regional Representative is arranged for the applicant. The candidate then is notified as soon as possible whether he has been accepted or declined; if accepted, he must send a deposit of $\$ 50$ within two weeks to insure enrollment. This money is applied toward the tuition. The next first-year class will be admitted October 7, 1946. Applications should be submitted at least six months before the opening date. The number of students in each class is limited to 68 , but only those students will be accepted who give promise of being a credit to the School and the medical profession. Women are received on the same terms as men. In the event of vacancies, students from other medical schools may be considered
for admission to any quarter for which their previous training has fitted them. Each application for advanced standing will be considered upon its own merits.

## REQUIREMENTS FOR ADMISSION


#### Abstract

"I request that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination and application evincing a wholesome and real ambition for life."-James B. Duke.


Intelligence and character are the essential qualifications for admission.
The minimum requirements for admission to this School include approved college credits of not less than ninety semester hours, which shall include adequate preparation in English, mathematics, physics, biology, and chemistry. This preparation should be obtained in college courses of one-year duration except for chemistry. In that subject a two-year course is recommended: the first year to cover general (inorganic) chemistry; the second, analytic and organic chemistry.

The premedical student should be aware of the importance of a wellrounded general education as a preparation for the study of medicine and not limit himself to scientific courses. He would be better advised to secure a knowledge of the principles and a thorough appreciation of the interrelations of the basic sciences than to accumulate credits in many courses. He should learn how to work independently, to observe critically, and to analyze, rather than simply store, the information presented. His choice of studies, beyond those required for admission, should be governed by his own chief interests and by the intellectual stimulus to be derived from the work. His major interest may be in any field, scientific or otherwise, and should provide an opportunity for the demonstration of his real ability. In general, he should avoid courses in subjects which are included in the medical curriculum.

The selection of students is based upon the quality rather than the quantity of preparation and upon demonstrated evidence of personal attributes of intelligence, character, and general fitness for the study and practice of medicine. In considering an applicant many sources of information may be consulted, including (1) his curricular and extracurricular college record, (2) carefully prepared, confidential appraisals by teachers who know him personally, (3) his percentile rating on the Medical Aptitude Test,* (4) his record in the Graduate Record Examination, $\dagger$ and (5) the results of an interview with members of the Admission Committee or one of its Regional Representatives.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICINE

After the completion of six quarters in the Duke University School of Medicine, Duke University, on the recommendation of the Executive Committee, grants the degree of Bachelor of Science in Medicine to medical students who have completed creditable investigative work, pre-

[^8]pared an acceptable report of the investigation, and passed an examination upon the subject of the investigation before an advisory committee. Students who elect to undertake work toward this degree must obtain written permission from the Executive Committee after approval of their program by the head of the department in which the work is to be done. No credit toward this degree is given for additional college work. All students in good standing are encouraged to undertake such investigative work as they may elect with the approval of the head of the department in which they wish to work. All requirements must be completed three months prior to the date on which the B. S. degree is requested.

## REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE

The degree of Doctor of Medicine is conferred on those who have completed, to the satisfaction of the Executive Committee, the twelve quarters of 11-12 weeks each of the curriculum of the School of Medicine, the preclinical and clinical examinations, and have signed an agreement that they will spend at least two years of the succeeding three years in hospital or laboratory work acceptable to the Executive Committee. As a guarantee of this pledge the diploma is deposited in the Treasurer's Office until after the completion of this training. Failure to fulfill this agreement constitutes a waiver of any claim to possession of the diploma and the degree of Doctor of Medicine. During the present emergency, the required period of approved hospital or laboratory training the latter half may be active duty in the Army, Navy or U. S. Public Health Service.

## DEPARTMENTS OF INSTRUCTION

Anatomy<br>J. E. Markee, Professor of Anatomy and Chairman of the Department.<br>D. C. Hetherington, Professor of Anatomy in Chargc of Histology and Neuro-anatomy.<br>IV. H. Hollinsheal, Associate Professor of Anatomy.<br>J. W. Everett, Assistant Professor of Anatomy'.<br>T. L. Peele, Assistant Profcssor of Anatomy.<br>C. H. Sawyer, Assistant Professor of Anatomy:<br>K. L. Duke, Associate in Anatomy.<br>G. J. Baylin, Associatc in Anatomy and Associate Professor of Radiology'.

The required courses of instruction in gross human anatomy, histology, and neurology are scheduled for five and one-half days a week for a period of eighteen weeks during the first quarter and the first half of the second quarter. In all of this work considerable freedom is allowed the student in his selection of working hours and in the plamning of his own methods of attack. Emphasis is placed upon the study of material in the laboratory. In an attempt to utilize more fully the laboratory time, visual educational methods are employed as fully as possible. These techniques consist of colored motion pictures of demonstration dissections, colored lantern slides, animated motion pictures of development and movies of serially sectioned material, both embryological and neurological. All of the instruction is designed to be as informal and as nearly individual as possible. General principles and the functional viewpoint of living anatomy are stressed in the hope that the student may be stimulated to secure a working knowledge of anatomy in the broadest sense. Whenever possible, fresh tissues and living cells are made available for examination, and clinical cases exemplifying anatomical principles are studied whenever they are available at appropriate times. Through the co-operation of the Department of Radiology, the students are given an opportunity to study portions of the living human body as revealed by the fluoroscope and roentgenograph. The following elective courses are offered:

Demonstrations in Anatomy. Using dissections already prepared, weekly demonstrations of selected regions or systems are made by the members of the group. Sixth quarter-Two hours per week by arrangements. Second-year students in groups of 10 .

Review in Anatomy. During the sixth quarter, a review in anatomy will be presented by the visual education methods outlined above, covering gross and neuro-anatomy, and histology. This optional review carries no units of credit. It is designed to refresh the student's knowledge of anatomy just before he begins to apply it during the clinical quarter.

Special Neuro-anatomy. Laboratory work and conferences upon selected portions of the human central nervous system. A two-quarter course limited to 6 junior or senior students. Tuesday and Thursday mornings of the first quarter are devoted to study of sections and dissections of the brain stem. Satisfactory completion of the first quarter
will determine admission to the second quarter seminars-2 hours weekly by arrangement-upon special topics in neuro-anatomy and neurophysiology.

Brain Modeling. Free-hand reconstruction in clay, from gross and sectioned material, of the chief tracts and nuclei of the human brain stem. A two-quarter course, by arrangement-4 to 10 students.

Experimental Neurology. An operative and laboratory study of the effect of various lesions upon the central and peripheral portions of the nervous system. 4 to 8 junior and senior students by arrangement. Pre-requisite-operative surgery.

Scminar. This work is designed for those who are interested in becoming acquainted with some of the original literature on anatomical problems. A wide range of choice in the selection of topics is encouraged. Weekly, any quarter; time by arrangement. 6 to 10 students.

Adianced Studics in Anatomy. Further work in the several branches of anatomy may be arranged at any time. Prospective candidates for such work should discuss their desires with the members of the staff in charge of the particular field in which work is requested. since only a small number can be accommodated at any one time. A few properly qualified students may be permitted to undertake original research under the direction of various members of the staff.

## Biochemistry

W. A. Perlzweig, Professor of Biochemistry and Chairman of the Department. H. M. Taylor, Associate Professor of Biochemistry and Toricology.

Hans Neurath, Associate Professor of Biochemistry.
Mary L. C. Bernheim, Assistant Professor of Biochemistry.
Philip Handler, Assistant Professor of Biochemistry.
F. W. Putnam, Instructor and Research Associate in Biochcmistry.

Nora Levitas, Research Assistant in Biochemistry.
Fred Rosen, Research Assistant in Biochemistry.
J. W. Huff, Nutrition Foundation Fellore in Biochemistry.
E. Volkin, Abbott Laboratories Fellow in Biochemistry.
M. A. Forney, M.T., Technical Assistant.

The required course in general biochemistry for first-year students is given over a period of eighteen weeks comprising the last half of the second quarter and throughout the third quarter. Two lectures, four laboratory periods, and one conference period per week are devoted first to the correlation of the fundamental facts and theories of physical and organic chemistry of proteins, fats, and carbohydrates with the chemistry of living organisms; followed by an intensive study of the chemical aspects of the processes of digestion, absorption, circulation and respiration, acid-base and salt equilibrium, intermediary and over-all metabolism. Each student carries out on himself a fairly complete, metabolic balance study involving quantitative analyses of blood and urine.

Since the success of the students in this course is largely determined by the adequacy and ready availability of their premedical training, it is urged that all students review the fundamental laws, theories, and facts of chemistry before the beginning of the course. A circular outlining the topics requiring special attention is sent to all students upon admission. Additional copies of the circular may be obtained from the Dean's Office.

An examination to test the state of preparation of the student is given in the beginning of the course in biochemistry.
lilcctiocs. In connection with the course given in the sixtl quarter for second-year students a survey of pathological and clinical chemistry is presented. In this course are covered abnormalities of protein, fat and carbolydrate metabolism, acid-base regulation, salt and water rlistribution, nitrogen retention, calcium and phosphorus metabolism, bloor and derived bile pigments. The discussion of these topics is based upon case histories, including the records of the Clinical Chemical Laboratory of the Hospital.

Biochomical Rescarch. The facilities of the department, including rarious types of research equipment and the clinical material of the bloorl chemistry laboratory, are arailable to properly rualified students for independent or supervised investigations. Chemical investigations of prohlems in biochemistry or in conjunction with the clinical and pathological departments may be carried on.

Scminar in Torvology. A round-table discussion of the homicidal, suicidal and industrial poisons, alcoholism, etc., by arrangement.

Laboratory Detcction of Common Poisons. A laboratory course in the properties, detection, and identification of the common poisons. Consideration is given to the types of material to be examined, legal precautions to be taken and interpretation of the findings, by arrangement.

Chomistry of Protcins, Enzymes, and Virnses. A two-hour seminar is given weekly througlout the Autumn, Winter, and Spring Quarters.

Inmmonolicmistry. A two-hour seminar given in collaboration with the Department of Bacteriology. This course is given in alternate years with the preceding course in protein chemistry.

Physiology, Pharmacology, and Nutrition
G. S. Eanif, Professor of Physiology and Pharmacology and Chairman of the Dcpartment.
Fremerick Bernheim, Professor of Platuacology.
F. G. Hall., Professor of Physiology.
F. D. McCrea, Associatc Professor of Physiology and Pharmacology.

Percy M. Dawson, Yisitin! Professor in Plysiology and Pharmacology'.
W. J. Dann, Associate Professor of Physiology and Nutrition.

Hans Löwenrache, Assistant Profcssoi of Neuropsychiatry and Physiology. MacDonald Dick, Associate in Medicine, Physiology, and Pharmacology.

The elements of physiology, pharmacology and nutrition arc taught in the laboratory and in frequent conferences.

Rescarch. A few properly qualified students arc permittcil to undertake original research in physiology, pharmacology or mutrition under the direction of various members of the staff.

## Pathology

W. D. Forbus, Professor of Pathology and Chairnan of the Department.
C. C. Erickson, Associate Professor of Pathology.
R. H. Follis, Associate Professor of Pathology.

Valy Menkin, Assistaut Professor of Pathology.
B. Black-Schaffer, Associate in Pathology.
A. M. Besterrentje, Assistant in Pathology.
J. L. Hansen, Assistant in Pathology.

Lalla Iverson, Assistant in Pathology.
F. A. Marzoni, Assistant in Pathology.
C. M. Bishop, Technical Assistant.

Gencral Pathology. The course in general pathology is given during the fourth and fifth quarter of the curriculum, following completion of the prerequisite courses in anatomy, physiology and biochemistry. The course in pathology is co-ordinated with that in bacteriology, the timing and arrangement of the two courses being such that the general principles governing the growth and propagation of bacteria are covered hefore the students undertake the study of bacterial parasitism in the course in general pathology.

The objects of the instruction in pathology are briefly as follows: (a) to provide an opportunity for the medical student to gain a comprehensive knowledge of general biological principles as they may be observed in the diseased animal, (b) to guide the student in his study of the basic pathological reactions of animal tissues and of the individual as a whole to the environmental influences under which they live, and (c) to acquaint the students with the common disease entities. The course embraces a study of the nature, causation, development and outcome of disease; in brief, a comprehensive study of the reactions of the body to injury. The schedule of instruction falls into three major divisions, each dealing with one of the basic reactions to injury (submission, resistance, adaptation) and the disease entities arising out of their elaboration. A short period of orientation introduces the three major divisions of the schedule.

The permanently preserved materials of instruction consists of: (a) a museum of fixed tissues, preserved in unsealed containers in each of which are deposited the organs from a single case, (b) the histological preparations made in the study of these cases. (c) complete clinical and anatomical protocols corresponding to the cases, and (d) a supplementary loan collection of microscopic preparations and lantern slides. These materials are in addition to those from the current autopsies, which average about 325 a year. All materials are catalogued and are grouped in such a way as to facilitate their use by the individual students and by the small groups into which the class is divided.

All the museum work of the class is done with small groups, each under the guidance of a senior instructor and his junior assistant. The assignment of instructors is changed at appropriate intervals. The chief emphasis of instruction is upon the basic pathological processes underlying the well-established disease entities. The central theme of the course is carried by lectures which orient the museum work of the various student groups. Although the emphasis is upon the basic reactions to injury and the corresponding pathological processes, this is accomplished through the study of actual cases of human disease in which these general pathological processes occur. Disease is presented to the study as a natural phenomenon referable to the body as a whole, and no distinction is drawn between the basic pathological processes as they may happen to
occur in the different organs of the body; nevertheless, adequate account is taken of their variations in localization and associated functional disturbances, etc., under different sets of circumstances, as the cases of well-defined disease entities are studied. The histological aspects of the pathological processes are studied coincidentally with the gross anatomical and physiological alterations of the tissues, thus maintaining a unity of conception of disease. As the various pathological processes and the disease arising from their elaboration are studied by the student groups, assignments involving reports on the study of groups of cases are made to individual students.

The group work and the individual student reports are supplemented by weekly conferences involving the class as a whole and dealing with problems presented by current autopsies and with other problems of general importance. Student collaboration in the post-mortem study is required. For this purpose the class is divided into groups of three students. One of these makes a bacteriological study of the case, but each student is required to make his own general pathological study of the case with appropriate protocols. Cases thus prepared are presented by the students before the class under the direction of the staff; this takes the form of a clinical-pathological conference in which each student plays a separate role

Elective Courses. Special courses in pathology are given to students who have completed the course in general pathology. These courses are elective and are available through special arrangement.

Clinical-Pathological Conference. A clinical-pathological conference for advanced study, is held on alternate Fridays during three quarters of the year. It is open to all persons interested, but is designed especially for the Hospital and Medical School Staff. Attendance by all the students is encouraged but is optional. This conference deals with a single case which serves as a text for the discussion of fundamental problems related to the nature, cause, development, and treatment of disease.

On alternate Saturdays a diagnostic clinical-pathological conference is held in collaboration with the staffs of the medical and pediatric departments, dealing with current autopsies from these services. Attendance of the junior and senior students is required at this conference, in which they take an active part.

Miscellaneous weekly clinical-pathological conferences dealing with current cases under treatment on the various surgical services are held for instruction of the resident staffs concerned.

Student Research. Research facilities are provided for competent students. Those who show an interest in investigative work are given every encouragement and are allowed to work independently or in collaboration with the staff.

Postgraduate Instruction. The staff of the department is composed of senior nonresident and junior resident members. The junior resident staff consists of interns, assistant residents, and a resident; all of these are active teachers as well as advanced students of disease. Ample opportunity for the development of careers in the field of pathology is
provided for these men. Appointments are renewable over a number of years with appropriate advancement for those who demonstrate ability and adaptability for work in this field.

Medicolegal Instruction. The department works in close cooperation with the local coroner's office. A large proportion of the coroner's post-mortem investigations are made by the staff. Special medicolegal investigations for others are undertaken from time to time. The department collaborates with other departments of the Schools of Medicine and Law in an elective course in legal medicine that is given in alternate years.

Comparative Pathology. The department maintains a pathological diagnostic service for the State Laboratory of Animal Industry, from which valuable materials are obtained for the study of diseases of domestic animals. This connection also facilitates a close collaboration in experimental investigations between the staff and the Bureau of Animal Industry.

## Bacteriology and Parasitology

D. T. Smith, Professor of Bacteriology, Chairman of the Department, and Associate Professor of Medicine.
A. S. Pearse, Professor of Zoology.
N. F. Conant, Associate Professor of Bacteriology and Mycology.
D. S. Martin, Associate Professor of Bacteriology and Associate in Medicine. Mary A. Poston, Instructor in Bacteriology.
E. E. Menefee Jr., Instructor in Medicine and Bacteriology.
H. W. Craig, Technical Instructor.

Loulse W. Adams, Technical Assistant.
Bacteriology, Immunology, Parasitology, and Mycology. The required course is given in the fourth quarter. An intensive study is made of the common bacteria, fungi, and parasites which cause disease in man. The scope of the laboratory course is reasonably wide and acquaints the student with all the methods and procedures employed in bacteriological laboratories. Most of the lecture time is devoted to the immunological and epidemiological aspects of infection. The instruction is designed to give the students a clear conception of: (1) how organisms gain entrance to the body. (2) the type of poisons which they produce, (3) the nature of immune bodies which are produced by the host, and (4) the methods of preventing the disease by active and passive immunization.

Research Bacteriology. Opportunities for original investigations are afforded a few specially qualified students.

Clinical Bacteriology. During their clinical clerkships on medicine (one quarter each for junior and senior classes), the students may perform the routine and special bacteriological work for the patients assigned to them on the teaching service, under the direction of the Department of Bacteriology and in parallel with the Biological Division of the medical clinic.

## Medicine

Frederic M. Hanes, Florence McAlister Professor of Medicine and Chairman of the Department.
D. T. Smith, Professor of Bacteriology and Associate Professor of Medicine. J. M. Ruffin, Associate Professor of Medicine in Charge of Physical Diagnosis.
O. C. E. Hansen-Prüss, Associate Professor of Medicine in Charge of Clinical Microscopy.
Christopher Johnston, Assistant Professor of Medicine.
P. P. McCain, Assistant Professor of Medicine.
W. M. Nicholson, Assistant Professor of Medicine.
E. S. Orgain, Assistant Professor of Medicine.
E. L. Persons, Assistant Professor of Medicine.
D. S. Martin, Associate Professor of Bacterioloyy and Associate in Medicine. Walter Kempner, Assistant Professor of Medicine.
N. B. Branning, Associate in Medicine.

MacDonald Dick, Associate in Medicine, Physioloyy, and Pharmacology.
J. P. Hendrix, Associate in Medicine.

Susan G. Smith, Associate in-Medicine.
E. E. Menefee, Jr., Associatc in Medicine.

A Derwin Cooper, Instructor in Medicine.
H. J. Fox, Instructor in Medicine.
S. C. Hall, Instructor in Medicine.
*T. T. Jones, Instructor in Medicine.
I. H. Manning, Jr., Instructor in Medicine.
P. G. Reque, Instructor in Medicine, Dermatology and Syphilology.
R. IV. Rundles, Instructor in Medicine.

Clotilde Schlayer, Research Assistant.
O. N. Smith, Instructor in Medicine.
J. B. Stevens, Instructor in Medicine.
R. W. Graves, Associatc Professor of Neuroloyy.
*R. L. Craig, Instructor in Neurology.
J. L. Callaway, Associate Professor of Medicine in Charge of Derinatology and Syphilology.
I. T. Reamer, Instructor in Pharmacy.
F. H. Hesser, Instructor in Neurology.
E. G. Goodman, Instructor in Hematology and Allergy.
F. C. Bone, Instructor in Medicine.
R. J. Atwell, Assistant in Medicine.
R. G. Connar, Jr., Assistant in Medicine.
C. K. Donegan, Assistant in Medicine.
C. W. Irvin, Jr., Assistant in Medicine.
R. B. Kuber, Assistant in Medicine.
E. C. Beyer, Fellorv in Medicine.
W. S. Branning, Fellow in Medicine.
D. H. Fogel, Fellow in Medicine.
O. L. Mcfadyen, Jr., Felloze in Medicine.
B. R. McLean, Fellow in Medicine.
L. E. Sawyer, Fellow in Medicine.
R. C. Smith, Fellow in Medicine.

Helen Starke, Fellow in Medicine.
J. A. Segerson, Assistant in Neurology.
B. H. Kuhn, Instructor in Dermatology and Syphilology.
K. A. Riley, Assistant in Dermatology and Syphilology.
S. W. Barefoot, Fellowe in Dermatology and Syphilology.
P. W. Smith, Technical Instructor.
T. E. Lasater, Technical Instructor.
L. W. Adams, Technical Assistant.

Clinical Microscopy is given in the fifth quarter. The course includes the essentials of hematology and the examination of fresh material, such as urine, stools, spinal fluids, sputum, transudates, and exudates. The most important parasites of man are studied by the use of fresh and museum material. Second-year and senior students are given opportunities for special work and for investigation.

[^9]Physical Diagnosis and Introduction to Clinical Medicine. This course, in the sixth quarter, consists of instruction in history taking, physical examination, and the application of the preclinical sciences to the interpretation of findings. All departments, preclinical and clinical, including the specialties, participate. The importance of co-operation between clinic and laboratory is emphasized, and the preclinical departments extend the teaching of their particular branches in correlation with other preclinical and clinical studies. In this manner the course serves as an introduction to clinical medicine. The class is divided into sections of not more than ten students, and each student is given individual instruction.

Junior Medicine. Junior students are assigned in small groups for one quarter to the medical wards as clinical clerks. Teaching rounds are held from 8:30 to 9:30 A.M. on Mondays, Wednesdays, and Fridays. Medical clinics are given on Mondays, Wednesdays, and Saturdays at $11: 30$ A.M.

Therapeutics. Each group of junior students receives practical instruction in pharmaceutics under the guidance of an instructor in pharmacy. On Tuesdays and Thursdays from $1: 30$ to $2: 30$ P.M. bedside instruction is given in applied pharmacology and therapeutics to the group on Junior Medicine.

Senior Medicine. Senior students are assigned for one quarter to the out-patient clinic as clinical clerks. Teaching rounds are held from 9:30 to $11: 30$ A.M. on Mondays and Fridays. Seniors attend medical clinics on Mondays, Wednesdays, and Saturdays at 11:30 A.M.

Cutaneous Medicine and Syphilology. Instruction consisting of lectures, seminars, and study and treatment of patients in the out-patient clinic is offered each quarter to senior students.

Neurological Medicine. A sound understanding of neurological diseases is an essential equipment of every physician. Junior students are assigned neurological cases routinely during their service as medical clinical clerks. An elective course consisting of advanced bedside teaching in clinical neurology is offered for three quarters to senior students. The Laboratory of Experimental Neurology is available for postgraduate investigative work; this laboratory handles routinely the neurosurgical biopsy material, including intracranial tumors. An electro-encephalograph is in routine clinical use in both neurology and neuropsychiatry and is available for special research problems.

## Neuropsychiatry

R. S. Lyman, Professor of Neuropsychiatry and Chairman of the Department.
R. S. Carroll, Lecturer in Neuropsychiatry.

Bingham Dai, Lecturer in Psychiatry:
D. A. Young, Lecturer in Neuropsychiatry.
H. E. Jensen, Professor of Sociology and Mental Hygiene.
*R. S. Crispell, Associate Professor of Neuropsychiatry.
M. H. Greenhill, Associate Professor of Neuropsychiatry.

Leo Alexander, Associate Professor of Neuropsychiatry.
Herman deJong, Associate Professor of Neuropsychiatry.
D. K. Adams, Associate Professor of Psychology.
E. T. Thompson, Associate Professor of Sociology and Mental Hygiene. John Gillin, Associate Professor of Anthropology and Mental Hygiene.

[^10]Hans Löwenbach, 4 ssistant Professor of Ncuropsychiatry and Physiology. Alexander Adler, Visiting Assistant Profcssor of N'curopsychiatry.
R. B. Suitt, Associate in Neuropsychiatry.
B. T. Bennett, Associate in Neuropsychiatry.

Otto Billig, Associate in Neuropsychiatry.
R. C. Carroll, Associate in Ncuropsychiatry.
C. F. Walker, Associate in Neuropsychiatry.

John David Bradley, Instructor in Neuropsychiatry.
*R. L. Garrard, Instructor in Neuropsychiatry:
Marie Baldwin, Assistant in Ncuropsychiatry:
I. A. Harris, Assistant in Ncuropsychiatry.
W. W. Magruder, Assistant in Ncuropsychiatry:
E. A. Tyler, Assistant in Neuropsychiatry.

Barbara Kirkpatrick, Social Worker.
Katharine R. Lyman, Social Worker.
Ninette C. Dennis, Social Worker.
Instruction starts in the first year with an introductory course in psychobiology. In the second year, methods of psychiatric examination and a general presentation of the main reaction types are given. Each third-year student has a two-week clerkship on the psychiatric ward, and in the fourth year patients are worked up in the out-patient clinic for a period of three and a half weeks. A neuropsychiatric ampitheater clinic is held weekly throughout the year for third- and fourth-year students. Elective courses in neuropsychiatric methods of research, neurophysiological aspects of neuropsychiatry, psychosomatic medicine. psychoanalysis in medicine, and principles of psychotherapy are offered to fourth-year students. Students are invited to attend the staff case conferences, the monthly psychosomatic conferences and the conferences on neuropsychiatric disorders of childhood. Emphasis is placed upon the close relationship of psychiatry to other branches of medicine. Internships are available in neuropsychiatry with the expectation that they will lead to progressively greater interest in the neuropsychiatric problems encountered on all other services in the Hospital. Investigation is encouraged.

## Surgery

Deryl Hart, Professor of Surgery and Chairman of the Department.
C. E. Gardner, Jr., Associate Professor of Surgery.
K. S. Grimson, Assistant Professor of Surgery.
K. Ler. Pickrell, Associate in Surgery.
D. L. Lovell, Associate in Surgery.
$\dagger$ J. C. Trent, Associate in Surgery.
H. M. Schiebel, Instructor in Surgery.
J. W. Beard, Associate Professor of Surgery in Charge of Experimental Surgery.
Barnes Woodhall, Associate Professor of Neurosurgery.
G. L. Odom, Assistant Professor of Nerrosurgery.
W. B. Anderson, Associate Professor of Surgery in Charge of Opththalmology.
W. W. Eagle, Associate Professor of Surgery in Charge of Otolaryngology.
F. K. Stocker, Assistant Professor of Ophthalmology.
G. B. Ferguson, Associate in Bronchoscopy.
L. D. Baker, Associate Professor of Surgcry in Charge of Orthopaedics.
R. B. Raney, Associate in Orthopaedics.
C. E. Irwin, Lecturer in Orthopacdics.
O. L. Miller, Lecturer in Orthopaedics.

[^11]IW. M. Roberts, Lecturcr in Orthopaedics.
J. W. White, Lecturer in Orthopaedics.
R. L. Bennett, Lecturer in Phy'sical Mcdicince.
E. P. Alyea, Clinical Professor of Urology:

1. E. Dees, Assistant Professor of Urology.
L. C. Roberts, Itsistictor in Urology.
T. W. Atwood, Associatc in Dentistry.
*N. F. Ross, Instructor in Dentistry.
*L. M. Enwards, Jr., Assistant in Dentistry.
Dorothy W. Beard, Rescarch Associate in Stergety.
G. R. Cooper, Rescarch Associate in Surgery.
A. E. Ноок, Resedrch Associatc in Surgery.
D. G. SHARP, Rescarch Associate in Surgery.
A. R. Taylor, Research Associate in Surgery.
F. F. Stebbins, Rescarch Assistant in Surgery.
$G$ B. Hodge, Instructor in Surgery.
W. F. Hollister, Instructor in Surgery.
H. M. Baker, Assistant in Surgcry'.
J. P. Collins, Assistant in Surgery.
H. M. Drate, Assistant in Surgery.
R. W. Postleth wait, Assistant in Surgery.

Marc Reardon, Assistant in Surgery.
W. W. Shingleton, Assistant in Surgery.
A. Davinson, Instructor in Otolaryngology and Ophthalmology.

Fugene Callaway, Assistant in Otolaryngology and Ophthalmology.
R. T. Cronk, Assistant in Otolaryngology and Ophthalmology.

Mack Rayburn, Assistant in Otolaryngology and Ophthalmology.
H. J. Schaubel, Instructor in Orthopacdics.
P. E. Getscher, Assistant in Orthopaedics.
J. A. Davidson, Instructor in Urology.
A. D. Puppel, Assistant in Urology.
C. E. Richards, Jr., Assistant in Urology.

Fridrik Kristofersson, Felloze in Neurosurgery.
Enrrigue Montero, Felloze in Surgery.
F. F. Serrato, Fellow in Surgery.
J. W. Campbele, Technical Assistant.

General Surgery. In the sixth quarter the second-year students. during their course in physical diagnosis, attend clinics and demonstrations arranged to familiarize them with the techniques of examinations and the diagnostic procedures used in general surgery and the surgical specialties. Emphasis is placed on the more practical and commonly used methods.

During the last six quarters at 11:30 A.M. on Tuesdays and Fridays and at 9:30 A.M. on Saturdays, clinics in surgery and the surgical specialties are held for junior and senior students. The junior students, during their surgical quarter, attend ward rounds in surgery from 8:30 to $10: 30$ A.M. on Mondays, Wednesdays, and Fridays, act as clinical clerks on the wards, assist in the operative treatment of patients assigned to them, and attend the out-patient clinic on Tuesday and Thursday afternoons. They obtain experience in anesthesia and operative surgery on animals with emphasis placed on general surgical principles. The surgical students in the senior year attend ward rounds from 8:30 to 11:30 A.M. on Mondays. Wednesdays, and Fridays, all the regular clinics, and assist in the surgical out-patient clinics in the afternoon. Also in groups of two for the proportionate time available they are assigned to the emergency divisiou oi

[^12]the out-patient clinic where they assist in the diagnosis and care of urgent conditions, and to the anesthesia division where they obtain instruction and practical experience in anesthesia. Individuals may take any of the electives offered.

A six days' concentrated course of training in the administration of amesthesia is open to twenty-four medical students each school quarter. Properly qualified students observe and administer anesthesia under direct supervision of staff anesthetists.

Otolaryngological Division. An introductory course of instruction in the use of otolaryngological instruments, with a review of normal anatomy, is given to second-year students in the sixth quarter. Clinics on Fridays at $11: 30 \mathrm{~A} . \mathrm{M}$. during one quarter of each year are given to junior and senior students; junior students during their obstetric quarter spend two afternoons for five and one-half weeks in the otolaryngological outpatient clinic. There are no formal otolaryngological ward rounds, but junior and senior students are assigned to patients during the surgical quarter, and group teaching on clinical cases is held at 10:30 A.M. each Wednesday during this quarter. Individual instruction is given the student by the various members of the staff. Each quarter an elective course is given in ear, nose, and throat conditions. This course includes anatomy; physiology; diseases of ear, nose, and throat; x-ray interpretation; and the use of diagnostic instruments.

Ophthalmological Division. During the sixth quarter second-year students receive instruction in elementary ophthalmology. During the senior pediatric quarter the students work in the ophthalmological out-patient clinic as assigned, and assist in the study and treatment of eye diseases. Especial emphasis is placed on the underlying medical and surgical conditions. Each student follows throughout his time in the out-patient clinic all patients assigned to him. For those who manifest an unusual interest in this specialty, provision will be made for more advanced work. Throughout the senior surgical quarter the students attend ophthalmological ward rounds for one hour each week, and during each academic year three clinics covering the more general neuro-ophthalmological and medical problems are given to all third- and fourth-year students.

Orthopacdic Dizision. In the sixth quarter an introductory course is given. During the surgical quarters the junior and senior students attend orthopaedic ward rounds at 9:30 A.M. on Mondays and attend fracture ward rounds at 9:30 A.M. on Fridays. Amphitheater clinics are held one quarter of each year at 11:30 A.M. on Fridays for juniors and seniors. Students in their senior surgical quarter are assigned in rotation to the orthopaedic out-patient clinic, which is held each afternoon from Mondays to Fridays, inclusive ; these students attend orthopaedic staff rounds at $5: 30$ P.M. Mondays through Fridays and may attend the Journal Club meeting, x-ray conference, and general ward rounds with the staff from 10:00 A.M. to $1: 00$ P.M. on Sundays. An elective course in the treatment of fractures is offered during the junior and senior surgical quarters. In this course the students get practical training in the reduction of fractures, the application of plaster of Paris casts, and in the follow-up treatment of fractures. Elective courses in physical therapy
and in the care of cerebral palsy patients are offered to the junior and senior students. Arrangements may be made for students who wish to do research or experimental work. Students are given the opportunity of attending the North Carolina Orthopaedic Hospital Clinic at Goldsboro the third Thursday of each month. They may also attend similar clinics held in Lumberton the first Friday of each month, in Elizabeth City the last Tuesday of each month, and in Tarboro the Monday before the last Tuesday of each month. By special arrangement with the curriculum committee senior students in the surgical quarter may by application do substitute intern work at the North Carolina Orthopaedic Hospital in Gastonia.

Urologic Division. In the sixtlı quarter, second-year students are given a course of lectures and practical demonstrations in urologic physical diagnosis in the normal individual student. Ward rounds on urologic patients are given every Saturday at 8:30 A.M., throughout the year. which junior students in their surgical quarter, and the senior surgical group are required to attend. During each quarter, small groups are selected from the senior surgical group of students and assigned in rotation to the urologic out-patient clinic every afternoon. Here, under proper supervision, they study patients and give recommended treatment. During one and a third quarters of the year urologic clinics are given on Fridays at 11:30 A.M. for the junior and senior classes. These clinics deal with the affections of the male and fenale urinary tract and of the male genital tract. Clinics for urethroscopic and cystoscopic investigation and for the more technical methods of urologic diagnosis and treatment are held Monday, Wednesday, and Thursday from 1:30 to 5:00 P.M. and Tuesdays and Thursdays from 9:30 A.M. to 12:30 P.M. throughout the year. X-ray conferences on all urologic cases are held Tuesday, Thursday, and Saturday mornings from 8:30 to $9: 30$ and are followed by staff rounds. Three senior students may select one of these cystoscopic clinics, x-ray conferences, and staff rounds as an elective. The Urologic Journal Club meets each Monday from $4: 30$ to 6:30 P.M., and members of the staff review their respectively assigned journals. Interested students are welcome.

Neurosurgical Division. 'Fhroughout the year at 9:30 A.M., on Saturdays, eight neurosurgical clinics are held for junior and senior students, at which the general principles of neurosurgical diagnosis and treatment are discussed. During all four quarters, weekly ward rounds are held at 8:30 A.M. on Fridays for the senior surgical group. Emplasis in these smaller clinics is placed upon the recognition of neurosurgical problems, followed by observation of the operative and postoperative procedures. Weekly x-ray and pathological conferences are held, and these may be attended by interested individuals.

Division of Plastic Surgery. Throughout the academic year, at $10: 30$ each Wednesday morning, a series of ward rounds is given to familiarize both third- and fourth-year students with the principles and practice of plastic and oral surgery. These fundamental lectures are supplemented with Kodachrome movies, demonstrating single and multiple staged opera-
tive procedures. Pre- and post-operative patients are shown, and their reconstruction or cosmetic problems are discussed. Since most plastic surgical dressings require scrupulous sterile technique, a list of dressings is posted in the operating room each day. These daily dressing periods provide the student with an opportunity to observe the progress of his patient and at the same time to learn the technique of many types of dressings, purposeful splinting, etc., which are explained and demonstrated. They also provide an excellent opportunity to see many types of skin grafts : direct transfer grafts, delayed single and double pedicle flaps and tubes, etc., during the various stages of plastic reconstruction.

Each Tuesday and Thursday afternoons, an opportunity is afforded interested students to observe moulage and cast work, cosmetic restoration of color, the making of prosthetic appliances, etc. This work is done under the direction of Mr. Elon H. Clark and Mr. Orville A. Parkes, of the Department of Medical Illustration.

Dentistry. Second-year students, in the sixth quarter, are instructed in the principles of dentistry.

## Radiology

R. J. Reetes, Clinical Professor of Radiology and Chairman of the Department. G. J. Baylin, Associate Professor of Radiology and Associate in Anatomy.
L. B. Waters, Jr., Instructor in Radiology.
J. C. Glenn, Jr., Assistant in Radiology.
D. J. McCulloch, Assistant in Radiology.
T. G. Thurston, Assistant in Radiology:
K. A. Youngstrom. Assistant in Radiology.
J. B. Cahoon, Jr., Technical Instructor.
H. L. Hassell, Technical Assistant.

The student teaching schedule in roentgenology consists of a course in roentgen diagnosis and a course in therapeutic radiology. The first is offered during each scholastic quarter on Tuesday and Thursday of eack week. The fundamental physics of x-ray is discussed, with the chief emphasis being placed upon the anatomical, pathological and physiological hases for the interpretation of x-ray films. The course is conducted in seminar fashion and no formal lectures are given. The students participate in and lead discussions with the instructor serving as the moderator. An attempt is made to acquaint the student with the aids of roentgenology in diagnostic problems. The correct use of x-rays in diagnosis is stressed.

Therapeutic radiology is given one hour weekly during each quarter. At these sessions the general problem of the treatment of benign, inflammatory and malignant lesions by $x$-ray and radium is discussed and the accepted views of the combination of these therapeutic agents with surgery is stressed. Representative cases are demonstrated, and the fol-low-up results are particularly stressed.

A limited number of senior students are permitted to attend routine film reading sessions in the Department of Radiology. They are also instructed in the fundamentals of fluoroscopic examinations and shown the many pitfalls of the inexperienced fluoroscopist.

A number of conferences with the resident house staff is conducted throughout the year. Each alternate Monday at 8:30 to 9:30 A.M. a session with the ear, nose and throat staff is held, during which the roentgen and operative findings are correlated. Each Thursday from 8:30 to 9:30 A.M. a pediatric conference is held at which current cases are discussed and clinical and x-ray findings are given. On alternate Wednesdays from 5:00 to 6:00 P.M. conferences are held with the surgical and medical house staffs and all cases with significant x-rays are presented for general discussion. The neurosurgical staff meets with members of the x-ray department every other Tuesday afternoon from $4: 00$ to $5: 00$ P.M. for a discussion of all cases that lave been studied by the two departments.

Each Thursday afternoon the conference is held by the nembers of the x-ray staff and visiting radiologists. Difficult cases are brought up for discussion and diagnosis.

## Obstetrics and Gynecology

Bayard Carter, Professor of Obstetrics and Gynecology and Chairman of the Department.
E. C. Hamblin, Associate Professor of Obstetrics, Gynecology, and Clinical Professor of Endocrinology.
R. A. Ross, Associate Professor of Obstetrics and Gynecology.
W. L. Thomas, Jr, Assistant Professor of Obstetrics and Gynccology.
M. Pierce Rucker, Lecturer in Obstetrics and Gynecology'.
E. B. Easley, Associate in Obstetrics and Gynecology.
R. L. Alter, Instructor in Obstetrics and Gynecology.
W. A. Graham, Instructor in Obstetrics and Gynecology.
L. E. Gordon, Jr., Instructor in Obstetrics and Gynecology.
J. G. Marrow, Assistant in Obstetrics and Gynecology.
J. M. Ingram, Assistant in Obstetrics and Gynecology.
K. M. Oliver, Assistant in Obstetrics and Gynecology.
L. P. Palumbo, Jr., Assistant in Obstetrics and Gynecology.
B. F. Townsend, Assistant in Obstctrics and Gynecology.

Clarence. D. Davis, Instructor in Endocrine Dizision, Obstetrics and Gynccology.
W. K. Cuyler, Research Instructor in Obstetrics and Gynecology.
J. de L. Araujo, Felloze in Obstetrics and Gymecology.

Florence Keller, Felloze in Endocrinology.
Juan Zañartu, Fellow in Endocrinology.
C. P. Jones, Technical Instructor.

Sccond-ycar students receive seventeen hours of instruction in the fundamentals of obstetrics and gynecology during their course in physical diagnosis in the sixth quarter. Clinics and demonstrations for junior and senior students are held on Saturdays at 10:30 A.M. during the Autumn. Winter, and Spring Quarters and on Mondays at $11: 30$ A.M. in the Summer Quarters. During one quarter of the junior year each group of students attends ward rounds at 8:30 A.M. on Mondays, Wednesdays. and Saturdays, preoperative conferences at 8:30 A.M. on Tuesdays and Fridays, and the out-patient clinic at 1:30 P.M. three times weekly, for eleven weeks. They also attend an endocrine clinic once a week for eleven weeks during the junior year. The students also spend part of each day on the wards. Senior students, during their surgical quarter,
have ward rounds on obstetrics and gynecology on Saturdays at 8:30 A.M. Each senior student, during his senior surgical quarter, spends one week on the delivery floor.

Elective courses in the diagnosis and treatment of obstetric and gynecological conditions are offered for junior and senior students.

## Pediatrics

W. C. Davison, Professor of Pcdiatrics and Chairman of the Department.
J. M. Arena, Assistant Professor of Pediatrics.
J. S. Harris, Assistant Professor of Pediatrics and Biochemistry.

Angus McBryde, Assistant Professor of Pediatrics.
H. G. Taylor, Assistant Professor of Pediatrics.
A. H. London, Jr., Associate in Pediatrics.
S. C. Dees, Associate in Pediatrics.
A. T. S. Davison, Assistant in Pediatrics.

Elizabeth Conrad, Assistant in Pediatrics.
G. W. Kernonle, Assistant in Pediatrics.
R. J. Murphy, Jr., Assistant in Pediatrics.
C. G. Watkins, Assistant in Pediatrics.

Mildred M. Sherwood, Supervisor of Pcdiatric Nursing.
Lola P. Jones, Supervisor of Prcmature Nurscry.
Alperto Córdova y Cordovés, Fellow in Pcdiatrics.
I-Ling Tang, Fellow in Pediatrics.
Each second-ycar student receives nine hours of instruction in elementary pediatrics during the course in physical diagnosis in the sixth quarter. Junior and scnior students, during their medical quarters, have pediatric ward rounds on Saturdays, from 8:30 to $9: 30$ A.M. The senior students are divided into three groups, each of which spends one quarter in pediatrics. During this quarter they are assigned daily as clinical clerks on the children's ward, nursery, and pediatric out-patient clinic; attend ward rounds at 8:30 A.M. Wednesdays and Fridays and 9:30 A.M. on Mondays; are instructed in the practical nursing of infants by Miss Sherwood on Wednesdays at 9:30 A.M.; and are taught the preparation of diets for infants and children by the Professor of Dietetics. Each student attends infant feeding clinics on Fridays during this quarter. On Thursdays at 11:30 A.M., the junior and senior students attend demonstrations at which the preclinical basis, as well as the clinical aspects, of disease are emphasized. Elective courses: senior students may assist in the treatment of pediatric patients in the syphilis clinic on Thursdays at 9:00 A.M., do research work, or assist in the pediatric ward or out-patient clinic one or more mornings per week, according to the time at their disposal.

## Legal Medicine and Toxicology

I. B. Bradway, Professor of Law.
T. D. Bryson, Professor of Law.
W. D. Forbus, Professor of Pathology.
D. T. Smith, Professor of Bacteriology and Associate Professor of Medicinc.
H. M. Taylor, Associate Professor of Biochcmistry and To.ricology.

This course embraces a discussion of the relation of physicians to legal criminal procedures, jurisdiction of the coroner and medical examiner, laws governing the dead human body, personal identity of the
living and the dead, the medicolegal autopsy, traumatic injuries and fractures, rape, abortion, asphyxial death, homicidal, suicidal, and industrial poisoning, alcoholism, the examination of blood, stains, fibers, and the detection of malingering. The course is open to junior and senior students and is given in alternate years. Discussions of medicolegal problems for the house staff and senior students, and joint conferences of the medical and law students also are held.

## Preventive Medicine and Public Health

D. S. Martin, Associate Professor of Bactcriology and Associatc in Mcdicine. H. W. Brown, Visiting Lecturcr in Preventive Medicine and Public Hcalth. J. E. Larsh, Jr., Associate in Parasitology.
J. H. Epperson, Instructor in Preventive Medicine and Public Health.
L. A. Lubow, Lecturer in Preventive Medicine and Public Health.
J. R. Malone, Lecturer in Preventive Mcdicine and Public Health.
D. M. Williams, Lecturer in Prezcntive Medicine and Public Health.

Public Health and Hygiene. A lecture course is given in the second year to acquaint the students with general environmental sanitation including sewage disposal, water supplies, milk and food for rural and urban communities. Vital statistics, public health regulations, and various official public health organizations also are discussed. Exercises in the epidemiology of several diseases are introduced to give the student a broad view of disease and its prevention. Field Demonstrations. Visits for observation and instruction are made to state, county, and city health departments, infant and school hygiene clinics, dairies, public water supplies, sewage disposal plants, and industrial establishments. Seminars are held in which the students discuss the various problems encountered in their field experience. Preventive Medicine. A series of lectures and exercises is given during the senior year to provide students with the preventive point of view in the practice of medicine. The problems of infant and maternal hygiene, occupational diseases, the deficiency states, and the etiology, transmission, epidemiology and prevention of communicable diseases are considered. Emphasis is placed upon the relationship of the private practitioner of medicine to the public health program. A Laboratory Course given in the fourth quarter by the Department of Bacteriology consists of the identification and virulence testing of diphtheria cultures; the isolation of stool, throat, and blood organisms; the practical examination of water; Schick, Dick, and tuberculin tests; and vaccination against typhoid-paratyphoid fever and smallpox. Elective: Through the co-operation of several city and county health officers, students may spend one or more weeks in observing and assisting in the operation of these public health units. Senior students may elect one month's Fellowship in Public Health in Michigan offered by the Kellogg Foundation, if they have permission from the head of the department of the quarter concerned and make up the time afterward.

## CURRICULUM OF THE SCHOOL OF MEDICINE

The curriculum, shown below, consists of two semesters in the first year and three quarters each in the second, junior and senior years. There is no summer quarter between the first and second year, but in the two
clinical years the subjects of the autumn, winter and spring terms are repeated in the summer quarter. Starting with the Summer Quarter of 1946, this accelerated schedule will be optional, and students may take the two semesters of their first year, and three quarters in each of their subsequent years, and receive their certificates in four calendar years, or if they receive permission from the Curriculum Committee, they may at the end of their second year take the clinical quarters given during the summers and receive their certificates in three and one quarter calendar years.

Every effort is made to emphasize the close relationship of preclinical and clinical instruction. Members of the clinical staff assist in the teaching of preclinical subjects and demonstrate to the students of the first two years patients whose conditions illustrate the subjects being taught. Thus, from the student's first days, he is impressed with the interdependence of all branches of the medical science. In the junior and senior years, preclinical instructors assist the clinical staff in presenting the underlying basis of disease.

The free time in this curriculum may be spent in elective work or anything else the student wishes to do. No credits are given, but opportunity is provided for each student on his own initiative to obtain additional training which he may feel to be necessary or desirable. Elective courses have been organized for small groups, or the time may be utilized in independent work (including research) in any department, clinical or preclinical. Arrangements for taking such courses or doing other work are to be made through the Curriculum Committee.

It is hoped that many students will migrate to other medical schools for one or more quarters. Those who wish to do so, or to substitute a schedule different from that listed below, must have their programs approved in advance by the Curriculum Committee, and afterwards must present evidence that they have completed work comparable to that of the curriculum during the quarters in which they were away or were following an altered schedule.

## OPTIONAL ACCELERATED SCHEDULE

(The hours for these courses will be posted on the bulletin board.)

## FIRST YEAR

First Semester: HOURSOctober 1, 1945 to February 9, 1946.
Anatomy (including histology and neuroanatomy) ..... 702
Second Semester: February 18 to June 22, 1946.
*Physiology and Elementary Pharmacology ..... 396
$\dagger$ Biochemistry ..... 279
Psychobiology ..... 12
Free time ..... 15

[^13]Autumn Quarter (4th)October 7 to December 21, $19+6$.
Pathology ..... 216
Bacteriology and Parasitology ..... 164
Free time ..... 88
Winter Quarter (5th) :
January 6 to March 22, 1947.
Pathology ..... 200
Clinical microscopy ..... 120
Free time ..... 148
Spring Quarter (6th) :
April 7 to June 14, 1947.
Physical diagnosis and introduction to clinical medicine ..... 282
Advanced Pharmacology ..... 72
Public health and hygiene ..... 48
Free time ..... 66
Summer Quarter (7th) :*
July 1 to September 14, $19+6$. ..... 468
Autumn Quarter (8th):*October 7 to December 21, 1946.
Surgery (Junior) ..... 468
Winter Quarter (9th) :*
January 6 to March 22, 1947.
Obstetrics and Gynecology (Junior) ..... 384
Neuropsychiatry ..... 84
SENIOR IEAR
Spring Quarter (10th):*
April 7 to June 14, 1947. ..... 444
Preventive medicine ..... $2+$
Summer Quarter (11th) :*
June 23 to September 6, 1947.
Surgery (Senior), including urolugy and orthopaedics ..... 336
Obstetrics ..... 132
Autumn Quarter (12th) :* October 6 to December 20, 1947.
Pediatrics ..... 209
Surgery ..... 45
Final clinical examinations ..... 24
Neuropsychiatry ..... 45
Free time ..... 145
SUMMARY
Total number of hours in curriculum ..... 5,616

[^14]
## FEES AND EXPENSES

All fees for each quarter are due and payable at the beginning of each quarter, and no student will be admitted to classes until these fees have been paid at the University Treasurer's Office. A fine of $\$ 5.00$ is charged for late registration. No credit will be given for any quarter in which the tuition of $\$ 150$ has not been paid at the Treasurer's Office, whether the work has been done here or elsewhere, except that students who have been permitted by the Curriculum Committee to spend a fuarter at another medical school or hospital may subtract the amount of tuition paid at this other medical school or hospital from the $\$ 150$ due here for that quarter.

It is not advisable for a student to attempt outside work to defray his expenses: the results usually are disastrous to his health and academic standing.

## Fees and Expenses

Tuition, per quarter ..... $\$ 150$
Health Fee, per quarter ..... 3.33
Athletic Fee, admitting student to all athletic contests held on the University campus, during the quarter ..... 5
Room-rent, per quarter* (estimated) ..... 50 ..... 50
Board, per quarter (estimated) ..... 105
Laundry; per quarter (estimated) ..... 10 to ..... 20 ..... 50
Books, per quarter (estimated) ..... 25 to
Commencement and Diploma Fees $\dagger$ ..... 8
National Roard of Medical Examincrs Fees $\dagger \$ 25$ (Part I), $\$ 20$(Part II)
Microscope, ophthalmoscope, otoscope, and other equipment, whichare required of each student and which must conform to rigidstandards, may be ohtained on a rental basis from the Univer-sity, per quarter25 to 35
Estimated total expenses, per month ..... 135 to ..... 150

## ANGIER B. DUKE MEMORIAL AND OTHER LOAN FUNDS

The Angier B. Duke Memorial, Incorporated, administers through an advisory committee of the officers of the University a loan fund for students. In addition, the loan fund of the W. K. Kellogg Foundation is available for students who are not financially able to meet their expenses. Medical students, after their third quarter may apply for loans from these sources. No scholarships are awarded in the School of Medicine. The loan funds are administered in accordance with the folhowing regulations:

1. No loan will be made to a student who violates any of the regulations of the University or who is not doing outstanding classwork.

[^15]2. Loans will be made only to students who are taking full courses of study that lead to a degree, and all loans must be arranged not later than one week after the beginning of a quarter.
3. Every applicant for a loan must present with the application such security as the President of the University may approve, and no money will be advanced before a note with approved security is in the hands of the Treasurer of the University.

# SCHOOL OF MEDICINE STUDENTS 

|  | First-Year |  |  |  |  |  |  |  | Second-Year Junior-Year | Senior-Year | Total | 1932-1945 <br> Graduates |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Students | $\ldots \ldots . .72$ | 72 | 67 | 71 | 282 | 777 |  |  |  |  |  |  |

FIRST-YEAR STUDENTS (OCTOBER 1, 1945-JUNE 22, 1946)
Name and Preparation Home Address
Robert Shields Abernathy Gastonia, N. C.Davidson College;Massachusetts Institute of Teclinology;Yale Unizersity.
Henry Clifford Alexander, Jr Charlotte, N. C.Duke University.
Kenneth Eugene Ambrose (N) Oblong, Ill.Duke University.
James Bertram Anderson Mesa, Ariz.
University of 'Arizona.
Antoinette Baca. Earlington, Ky.
Duke Unizersity;
University of North Carolina; Vassar College.
Carey N. Barry Clearwater, Fla.University of Florida.
William Clement Battle. ..... State Park, S. C.University of South Carolina;Presbyterian College;Duke University.
William Rhett Berry, Jr St. George, S. C. Wofford College.
George Andrew Bishopric (N) Spray, N. C. Duke University.
Joe L. Bonnet Orange, N. J.
Duke University.
Hugh Page Brawner, Jr Washington, D. C. Duke University.
David Franklin Busby (N) Memphis, Tenn. Southwestern; Duke University.
Carolyn Coker Hartsville, S. C. Mount Holyoke College.
Eugene Jones Cornett (N) ..... Salem, Va. Virginia Polytechnic Institute; Emory and Henry College.
John Nathaniel Crowder (N) High Point, N. C. Duke University.
James Carroll Crutcher (N) Dover, N. J. Duke University.
Daniel William Davis, Jr Columbia, S. C. The Citadel.(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program.
Name and Preparation Home Address
Julian Carlyle Davis Quincy, Fla.
Duke University;
University of Florida; University of Tennessee; University of North Carolina.
Wayne Edward Davis (N) High Point, N. C.Duke University.
William Allen DeYoung Bay City, Mich.
Bay City Junior College;University of Michigan.
Richard Thomas Farrior (N) Tampa, Fla.
University of Florida;University of Miami.
Benjamin Hugh Flowe (N) Concord, N. C.Duke University.
Ann Fouch Orrville, Ohio
Duke University.
William Denton Furst (N) Catonsville, Md. Duke University.
John William Geibel, Jr. (A) Berea, Ohio
College of Wooster;
Clemson College ; University of Maryland.
William Harold Gentry Roxboro, N. C.
Wake Forest College; Duke University.
James Patrick Grattan (A) Medford, Okla.Oklahoma A. and M.;Vanderbilt University.
Gloria Lee Grimes Charlotte, N. C.Duke University.
Robert L. Hallet (A) Springfield, Ill.University of Vermont;University of Maryland.
Charles Mitchell Hamilton (N) Nashville, Tenn.Vanderbilt University;Duke University.
Louis Elmore Harmon, Jr. (A) Russellville, Ohio
Miami University;Mississippi State;Vanderbilt University.
William Franklin Harris (A) Inola, Okla. East Texas State Teachers College;Louisiana State University.
William Park Hickman ..... Bridgeville, Pa.
University of Pittsburgh.
Nashville, Tenn. Robert Lind Isham (N)
Vanderbilt University;University of North Carolina.
Robert Franklin Kibler. Durham, N. C.Duke University.
John Hoskins Kier Shelby, Miss. Southwestern College.
Melvin Arnold Krugly (A) Chicago, Ill. University of Illinois;
The Ohio State University.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) In-
dicates Apprentice Seaman in the Navy V-12(S) Program.
Name and Preparaiohn
Home Address
Joseph Laesser Kuhn Buffalo, N. Y.
Colgate University.
Ramon Linus Lange (A) Superior, Wis.
Superior State Teachers College;Vanderbilt University.
Samuel George Latty Durham, N. C. University of North Carolina.
Lawrence Robert Loftus (A) Toledo, OhioVanderbilt University.
William McCall, Jr. (N) Winston-Salem, N. C.Duke University.
Walter Rutledge Miller

$\qquad$
Johnson City, Tenn.Davidson College.
James LeRoy Morgan (N) Norfolk, Va.Duke University.
Mary Lou Mulligan Lakewood, Ohio Duke University.
Nina Mae Musselman Bethlehem, Pa. Duke University.
George Stephen Ninos (A) Bolivar, N. Y. Virginia Military Institute;Louisiana State University.
Aldrich Holt Northup (N) Pensacola, Fla. Duke University.
Suydam Osterhout (N) Massapequa, N. Y. Princeton University.
Ernest Benjamin Page, Jr. (N) ..... Raleigh, N. C. Duke University.
Jack Rodney Rabenberg (N) Wakefield, Nebr. Wheaton College; Duke University.
Gilbert Anthony Rannick (A) Kenosha, Wis. University of Wisconsin; University of Detroit; The Ohio State University.
Emmanuel Raphael Riff (A) Chicago, 111. University of Illinois; The Ohio State University.
Betty Sams Roof Columbia, S. C. University of South Carolina.
Dana Roy Schmidt (A) Marion, Ohio The Ohio State University;Rose Polytechnic Institute;University of Michigan.
Harold Warren Schnaper (A) Dorchester, Mass.
Harvard University; Louisiana State University.
Lawrence Herbert Schwartz (A) Detroit, Mich.Wayne University;University of Michigan,Hope College;University of Illinois.
James Lee Scott, Jr. (A) Starkville, Miss. Washington and Lee; Michigan State Normal College; University of Michigan.
(A) Indicates Private First Class in the Army Specialized Training l'rcgram. (N) In dicates Apprentice Seaman in the Navy V-12(S) Program.
Name and Preparation
James Herbert Shipp (A) Haughton, La.Michigan State University;University of Michigan.
Fredrika Patchett Smith New York, N. Y.Wilson College;Smith Collcge.
Ivan Eugene Smith (A) Chicago, Ill.Chicago Tcachers College;Rose Polytechnic Institute;University of Michigan.
Rosalind Gower Smith Durham, N. C.Duke University.
Earl Norman Solon (A) Chicago, Ill. University of Chicago;University of Michigan.
James Lampton Titchener (A) Binghamton, N. Y.Princeton University;The Citadel;Univcrsity of Maryland.
James Kenneth Tompkins Johnson City, N. Y.Duke University.
John F. Tracey (A) Kansas City, Mo. University of Mississippi.
Evelyn Gray Vail Pikeville, N. C.Duke University.
Junius Ernest Warinner, III (N) Richmond, Va.Hampden-Sydney;Duke University.
Joseph Warshaw (A) N. Hollywood, Calif. Louisiana State University.
Carl Holmes Weatherly, Jr. Leaksville, N. C.Wake Forest College;Duke University.
Oscar Brown Williams, Jr. (N) Austin, Tex.University of Texas.
John Winkle Wilson, Jr. (N) Chattanooga, Tenı. University of Chattanooga;Duke University.
SECOND-YEAR STUDENTS (JULY 2, 1945-MARCH 23, 1946)
George Reid Andrews Mt. Gilead, N. C.Dartmouth College;Yale University;Duke University.
James S. Arnold. .Chicago, I11. Duke University.
John Rainey Ashe, Jr. .Charlotte, N. C.The Citadel;Davidson Collcgc.Virginia Military Institute;Duke University.
Robert Henry Barnes . Cooperstown, N. Y. Union College.
Wilmer Conrad Betts (N) Raleigh, N. C. Duke University.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program.
Name and Preparation Home Address
John Vernon Blalock Durham, N. C.Duke University.
Donald Dean Carter (N) Erwin, Tenn.Duke University.
Gordon Malone Carver, Jr. (N) Durham, N. C.Duke University.
Warren James Collins Savannah, Ga.Duke University.
Ross Bache Cone ..... New York, N. Y.Oberlin College.
Herbert Lucien Corse Jacksonville, Fla.Princeton University.
William John Amsterdam DeMaria Westport, Conn. Unitersity of Connecticut.
Marcus Lunsford Dillon, Jr. (O) Lewisburg, W. Va.Duke University.
Bruce Hugh Dorman (N) Plainfield, N. J. Duke University.
Dante John Feriozi (N) Washington, D. C.Georgetown University;Duke University.
Harry Gustav Fish, Jr Pennsgrove, N. J.Duke University.
Robert Ross Fisher Youngstown, OhioDuke University.
Lucius Gaston Gage, Jr Charlotte, N. C.Duke University.
Howard William Gillen (N) Glen Rock, N. J.Duke University.
Robert Averill Gowdy W. Los Angeles, Calif.Davidson College;University of Minnesota;Duke University.
M. Edwin Green, Jr Lemoyne, Pa. Princeton University.
Charles Groshon Gunn, Jr. (N) Bluefield, W. Va. Davidson College; Duke University.
William Pullen Hadley (N) Gainesville, Fla. University of Florida.
William Clifford Haggerty (N) Lakewood, Ohio Duke University.
Louis Harris Paterson, N. J. Columbia College.
James Graham Harrison, Jr Mount Airy, N. C. The Citadel; Duke University.
John Hopewell Hebb (N) Baltimore, Md.
Duke University.
Howard Egbert Herring, Jr. (N) Wilson, N. C. Duke University.
Name and PreparationJames William Hollings worth Mt. Airy, N. C. Duke Unizersity.
Albert ${ }^{\text {PP. Isenhour, Jr }}$ Nashville, Tenn.Vanderbilt Unizersity.Henry LeRoy Izlar, Jr. (N) ...............................Winston-Salem, N. C.Duke Unizersity.
Jerome Milton Javer Brooklyn, N. Y.Duke University.
W. Thomas Jay, Jr Bradford, Pa. Duke Unizersity.
James Patton Johnson, Jr. (N) Lakeland, Fla.Duke University.
Harry John Kalevas Rockingham, N. C.Duke University.
James Ellis Kicklighter (N) Sarasota, Fla.Davidson College;Duke University.
William Lies, III. Coleman, Ga.
Duke University.
Carney's Point, N. J.
Eugene Joseph LinbergAugusta, Ga.John Terrell Logue, Jr. (A)Duke University;Georgia School of Technology;University of Wisconsin.
Robert Frederick Lorenzen Toledo, OhioDuke University.
Donald Vincent Mahony (N) Sparks, Md. Calvert Hall College; Duke University.
Joseph Howard McAlister Caruthersville, Mo. Duke University.
Ruth Reade McDonald. Durham, N. C.Duke University.
Theodore Jackson McGee, Jr. Columbus, Ga.The Citadel.
Harry Thurman McPherson Morgantown, W. Va. Duke University.
Thomas Peter McWilliams Scranton, Pa. Duke University.
Jane Merrill Woodward, Ala. Unizersity of Alabama.
Berry Bryant Monroe (N) Laurinburg. N. C.Davidson College.
John Crawford Muller Dillon, S. C. The Citadel.
Calvin Russell O'Kane Columbus, OhioDuke University.
John Council Parker (N) Farmville, N. C. Virginia Episcopal School;University' of North Carolina.
Jack Guyes Robbins (A) Durham, N. C. Duke University.(A) Indicates Private First Class in the Army Specialized Training Program. (N) In-dicates Apprentice Seaman in the Navy V-12(S) Program.

JUNIOR STUDENTS (JULY 2, 1945-MARCH 23, 1946)
Samuel Sheridan Ambrose, Jr. (N) Jacksonville, N. C. Duke University.
Ben Vaughan Branscomb (N) Durham, N. C. Duke University.
William Lester Brooks, Jr. (N) Charlotte, N. C. Princeton Unicersity.
James Robert Browning (N) Windber, Pa. Duke University.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) In. dicates Apprentice Seaman in the Navy V-12(S) Program.
Name and Preparation Home Addres:
John Ralph Burgess, Jr. (A)
Missoula, Mont Montana State University.
James Ryan Chandler (A) ..... Daytona Beach, FlaDuke University.
Thomas Carlaw Clifford (A) Shipman, VaYale University.
Raphael Woodward Coonrad (N) Evans City, Pa Davidson College.
Thomas Barker Dameron, Jr. (N) Goldsboro, N. C. The Citadel; Duke University, University of North Carolina.
James Charles Dawson, Jr. (A) San Francisco, Calif.San Francisco Junior College;University of San Francisco.
Albert W. Farley, Jr. (A) Bay City, Mich.University of Michigan;Duke University.
Blake Fawcett (N) Alderson, W. Va.Duke University.
Tom Bruce Ferguson (A) ..... Tulsa, Okia.Duke University.
Paul Gardner Fillmore (A) Provo, UtahBrigham Young University.
Herman Field Froeb (A) Forest Hills, N. Y.Princeton University.
Joseph Platt Gutstadt (N) Chicago, Ill.University of Chicago;Duke University.
Kobert Slotterback Keller (N) Lavelle, Pa. Duke University.
Dwight Talmadge Kernodle (A) Elon College, N. C.Elon College.
William Arnold Lambeth, Jr. (N) ..... Asheville, N. C.Duke University.
Atala Jane Scudder Davison Levinthal Durham, N. C.Barnard College;Duke University;Swarthmore College.
Kobert Oscar Lipe (N) Albemarle, N. C.Duke University.
Donald Stanley Littman (N) Sunnyside, L. I., N. Y.Duke University.
Frank Henry Longino (N) ..... Texarkana, Ark.Duke University.
Kalph Taylor McCauley (A) Koderfield, W. Va.Virginia Polytechnic Institute.
John Marshall McCoy (N) Charlutte, N. C.Erskine College.
Robert Ligon McWhorter, Jr. (N) Athens, GaUniversity of Georgia;Emory University.
Kobert Pickens Marshall (N) Washington, D. C.Duke University.(A) Indicates Private First Class in the Army Specialized Training Program. (N) indicates Apprentice Seaman in the Navy V-12(S) Program.
Name and Preparation Home Address
John Edward Masterson. . . . . . . . . . . . . . . . . . . . . . . . . . University Heights, OhioAdelbert College of Western Rescrip Unicersity.
William Thomas Mayer (A) Shelby, OhioAdelbert College of Western Rescric Unizersity:
Loren Valmore Miller (N). ..... Yonkers, N. Y.Concordia Collegiate Institute;Duke University.
John Robert Morris (N) Youngstown, OhioDuke University.
Donald Robertson Mundie ( N ) Kenmore, N. Y.Duke University.
Henry Hale Nicholson, Jr. (A) Statesville, N. C.Duke University.
Sherman Homer Pace (N) St. Petersburg, Fla. Duke University.
Grover Smith Patterson (N) Kannapolis, N. C. Catazuba College.
Robert Franklin Poole, Jr. (A) Clemson, S. C.The Clemson Agricultural College.
Rhea Sutphen Preston (A) Ponotoc, Miss. Davidson College.
William Watkins Pryor (A) Oxford, N. C.Wake Forest College.
Harry Campbell Sammons (N) Marietta, Ohio Marietta College.
Guy Phillip Sharpe, Jr. (N) ..... Tchula, Miss.Tulane University;Unizersity of Colorado;Vanderbit: University.
Kenneth Sihler Shepard (A) Chicago, Ill. Duke University.
James Loughrey Smeltzer (N) Youngstown, Ohio Western Reserve Unizersity; Duke Unizersity.
Ernest Wendell Smith (N) Charlotte, N. C. Duke Unizersity.
Stuart Cameron Smith (A) Staten Island, N. Y. Duke University.
LeRoy Everett Talcott, Jr. (N) ..... Hartford, Conn. Princeton Uniz'ersity.
Allen Taylor (A) Greenville, N. C. Duke University.
James Robert Teabeaut, II (A) Fayetteville, N. C.Duke University.
Jack Lamkin Teasley (N) St. Albans, VV. Va. Duke University.
Robert Hicks Thompson (N) Dublin, Ga. Clemson Collcge; Duke University.
William West Thompson (A) Hallsboro, N. C. Wake Forest College; Duke University.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) In- dicates Apprentice Seaman in the Navy V-12(S) Program.
Name and Preparation Home Address
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Silas Owens Thorne, Jr. (N) Charlotte, N. C.Duke University.
Frederick Cleverly Vogell (A) Wilmore, Ky.Asbury College.
William Charles Wansker (N) Macon, Ga.Duke University.
Joseph Major Ward (N) Robersonville, N. C. University of North Carolina.
Norma Ware Macon, Ga.
Duke University.
Harry Leon Wechsler (N) McKeesport, Pa.
Duke University.
Milton Weinberg, Jr. (N) Sumter, S. C. Duke University.
Robert Cooper Welsh (N) Miami, Fla. Duke University.
David Craig White (A) Englewood, N. J.Duke University.
Lawrence Jack Wilchins (A) Cincinnati, Ohio Duke University.
Roger Davis Williams (A) Charlotte, N. C. Duke University.
Leo Hughes Wilson, Jr. (N) Bradenton, Fla.
University of Florida; Duke University.
William Preston Wilson (A) Durham, N. C. Campbell Junior College; Duke University.
John Lemuel Wooten (A) Greenville, N. C. Duke University.
Rchard Nickles Wrenn (N) Anderson, S. C. Duke University.
John Engler Zeliff, Jr. (N) Youngsville, Pa.Pennsylvania State College;Duke University.
SENIOR STUDENTS (JULY 2, 1945-MARCH 23, 1946)
Harry Sholar Allen, Jr. (A) Florence, S. C.Davidson College.
Clarence Leonidas Anderson (A) Tampa, Fla. Davidson College.
Reid Hogan Anderson (A) Pullman, Wash. State College of Washington.
Robert Harper Anderson (A) Wilson, N. C.Duke University.
Dorothy Clarke Armstrong Port Arthur, Ontario, Canada Port Arthur Collegiate;Tufts College.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program.

Name and Preparation
Home Address
James Guernsey Bassctt (A) Port Huron Junior College; University of Michigan.
 The Citadel.
Alfred Seymour Berne (A) .....................................Woodhaven, N. Y. Duke University.
Richard Titsworth Binford (U) ...............................Guilford College, N. C. Guilford College; University of North Carolina.
Richard Calvin Bishop (N) .................................... . St. Petersburg, Fla. Duke University.
Alexander White Boone, Jr. (A) ............................... Pennsgrove, N. J. Duke University.
William Richard Brink (A).....................................Williamsport, Pa. Williamsport Dickinson Junior College; Pennsylvania State College; Harvard University.
Thomas Ray Broadbent (A)

Heber, Utah Brigham Young University.
John Burton Bryan (N) St. Petersburg, Fla.St. Petersburg Junior College;Duke University.
Frank Highsmith Campbell (N) Durham, N. C. Duke University.
Ralph Ingersoll Cottle, Jr. (N) Warren, Ohio Duke University.
Robert Edwin Crompton (A) Toronto, Ontario, Canada University of Toronto; University of Toronto Medical School, 1940-1943.
John Murdoch Crowell (A) .Chattanooga, Tem.University of Chattanooga.
Frank Willard Davis, Jr. (A) Biltmore, N. C.Duke University.
John Wesley DeReamer (A) Morrisville, Pa. Duke University.
Elaine G. Fichter. West Hazelton, Pa. Maryville College.
Zenas Waldo Ford, Jr. (A) Fayetteville, Ark. University of Arkansas.
Saul Arnold Frankel (A) Woodmere, L. I., N. Y. Yale University:
Walter Houseal Goggans (A) Newherry, S. C. Clemson Collegr.
James Boyd Golden (N) Greenfield, Mass. Duke University.
Everett Richard Harrell, Jr. (N) Birmingham, Mich. Ohio Wesleyan: Duke University.
Edward Gustavus Haskell, Jr. (N) Jacksonville, Fla. The Citadel.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program. (U) Indicates commission as Assistant Surgeon in the U.S.P.H.S. Reserve.
Name and Preparation Home Address
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William N. Henderson Maplewood, N. J.
New York University; Duke University.
Thomas Alfred Hockman (N) Kalamazoo, Mich.
University of Cincinnati;
Duke University.
David Smith Hubbell (A) Durham, N. C.Duke University.
Carlos Lee Hudson (A) Urbana, Ill. University of Illinois.
Ralph Herlinger Jamison ( N ) Warren, Ohio
Western Reserve University;Duke University.
Joseph Kempton Jones (N) Salishury, N. C.Duke University.
Thomas Francis Kelley (A) Waltham, Mass.Massachusetts State College;Unizer rsity of California.
Grace P. Kerby Miami, Fla.Florida State College for Women;Johns Hopkins Uniz'rsity.
Ethen Sease Koon, Jr. (N) Asheville, N. C.
Biltmore College;
Mars Hill College;Duke University.
Duval Holtzclaw Koonce (A) Chadbourn, N. C. Duke University.
Thomas Howard Lewis (N) Seattle, Wash.University of Washington.
Carmine Keith Lyons (N) Charleston, W. Va.Duke University.
Walter Anderson McLeod, Jr. (N) St. Petersburg, Fla.
St. Petersburg Junior College;Duke Unitersity.
John Guy Maines, Jr. (N) Ossining, N. Y. Duke University.
Ashton Bryom Morrison Sunnyside, Northern IrelandQueen's University.
Paul Lanier Ogburn (A) Charlotte, N. C.Canadian Academy;Duke University.
Harold Monroe Peacock (N) Benson, N. C. University of North Carolina.
Robert Lloyd Pinck (A). Paterson, N. J. Washington and Lee University.
Ralph Waldo Powell (N) Avondale Estates, Ga.Duke Unizersity.
James Warren Rogers (N) Cleveland Heights, Ohio University of Georgia.
Evan Weible Schear (A) Westerville, Ohio Otterbein College.


Guy Walter Schlaseman (A)............................................................. Pa. Duke Unizersity.
Paul Henry Sherman (N)........................................... . Baltimore, Md. Alabama Polytechnic Institute: Duke University.
Alwyn Abraham Shugerman (A)............................... Birmingham, Ala. Birmingham-Southern College; Unizersity of Alabama.
Homer Alden Sieber (A)................................................................. Va. Roanoke College.
 Rice Institute; Texas University.
Richard Marks Stitt (N) ............................................... Warren, Ohio Pennsylvania State College; Denison University.
Thomas Bayton Suiter, Jr. (A) ................................ Rocky Mount, N. C. Duke University.
Richard Earl Symmonds (N) ....................................... Memphis, Mo. Central College.
Lloyd McCully Taylor (N) ............................................ . Maryville, Teni. Maryville College.
James Richard Thistlethwaite (A) ...........................................chmond, Va. University of Richmond.
 Duke University.
Rubert Gordon Thompson (A) .................................. Durham, N. C. Duke University.
Malcolm Paul Tyor (N)................................................Jamaica, N. Y. University of Wisconsin.

Joseph Emmett Walthall, III (A) ............................................................. Was. Wa.
Greenbrier Military School;
West Virginia University.
Lewis William Wannamaker (A).............................St. Matthews, S. C. Emory University.

James Foster Williamson ( N ) $\ldots \ldots$................................Columbia, S. C. Clemson College.

Dan Hall Willoughby (A) ........................................... Jackson, Miss. University of Mississippi; Duke University.
John Cummings Withington . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Savannah, Gá.
Frank Reece Wrenn (N) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Anderson, S. C. Duke University.
Jack Dunn Wycoff (N) ........................................... Springfield, Ky. The Citadel.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program.

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## The School of Forestry

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# OF <br> Duke University 

## THE SCHOOL OF FORESTRY



ANNOUNCEMENTS FOR 1946-47

DURHAM, NORTH CAROLINA
1946

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## SCHOOL OF FORESTRY CALENDAR

1946
Sept. 17 Tuesday-Student conferences with School of Forestry Faculty.
Sept. 18 Wednesday-Registration of students in the School of Forestry.
Sept. 19 Thursday-Instruction begins in the School of Forestry.
Nov. 28 Thursday-Thanksgiving Day: a holiday.
Dec. 11 Wednesday-Duke University Day.
Dec. 20 Friday, 1:00 p.m.-Christmas recess begins.

1947
Jan. 3 Friday, 8:00 A.m.-Instruction is resumed.
Jan. 22 Wednesday-School of Forestry mid-year examinations begin.
Jan. 28 Tuesday-School of Forestry mid-year examinations end.
Jan. 29 Wednesday-Registration of students in the School of Forestry.
Jan. 30 Thursday-Second semester begins.
March 22 Saturday, 1:00 p.m.-Spring vacation begins. School of Forestry Coastal Plain field work begins.

March 31 Monday, 8:00 A.m.-Instruction is resumed.
April 7 Monday, 8:00 A.m.-Coastal Plain field work ends.
May 1 Thursday-Last day for submitting Doctor of Forestry theses.
May 15 Thursday-Last day for submitting Master of Forestry theses.
May 23 Friday-School of Forestry final examinations begin.
May 31 Saturday-Commencement opens.
June 1 Sunday-Commencement sermon.
June 2 Monday-Commencement address and graduating exercises.

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## FORESTRY IN DUKE UNIVERSITY

## GENERAL STATEMENT

Duke University, located at Durham, North Carolina, comprises Trinity College, the Woman's College, the College of Engineering, the Graduate School of Arts and Sciences, the Divinity School, and the professional schools of Forestry, Law, Medicine, and Nursing. Nearly every state of the Union and several nations are represented in the student body of more than four thousand, not including the enrollment in the Summer Session.

The University goes back in its origin to 1838 , when Union Institute was founded in Randolph County by the Methodists and Friends. In 1851 the institution became Normal College, one of the first schools in America for the training of teachers. In 1859 the name was changed to Trinity College and so continued until 1924, when the College became a part of Duke University.

By virtue of an indenture of trust, executed December 11, 1924, by James Buchanan Duke, a great benefaction was placed at the disposal of humanity by providing for hospitalization, church work in rural communities, and education. The principal feature of the educational provision was the creation of Duke University.

The University occupies two campuses. The Woman's College campus, with its 108 acres, was formerly the campus of Trinity College. About a mile to the west are the new units of the University. The new campus, totaling 467 acres, also known as the West Campus, was first occupied in September, 1930.

Forestry in Duke University began early in 1931, when, through placing the Duke Forest under•intensive management for forestry purposes, a substantial beginning was made in laying the foundation for educational work and research in forestry.

An academic-forestry curriculum, designed for students intent upon pursuing the study of forestry, particularly as a profession after graduation, was organized in Trinity College of Duke University in 1932 (see Announcement on Undergraduate Instruction in Duke Unizersity). This four-year course of study provides only for instruction in fundamental and auxiliary subjects basic to a proper understanding of the highly specialized work in technical forestry. Duke University offers no professional degree in technical forestry available to undergraduates.

Training in technical forestry leading to the professional degrees, Master of Forestry and Doctor of Forestry, is offered in the School of Forestry, and is open to all graduates of the academic-forestry curriculum in Trinity College and to graduates of recognized scientific schools or colleges, universities, and professional schools of forestry.

Duke University is also prepared to offer, through the Graduate School of Arts and Sciences, graduate work in the more scientific aspects of forestry leading to the Master of Arts and Doctor of Philosophy degrees. This work is available to graduates of schools of forestry of recognized standing, and to college or university graduates holding the Bachelor's degree with their major work in appropriate scientific subjects. Undergraduate subjects which the college student, who does not have forestry training but who is contemplating work toward either degree in forestry, should take in preparation for this work may be illustrated as follows: at least two full years in botany, including general morphology or anatomy, the taxonomy, physiology, and ecology of plants; at least one course in zoology or general biology; courses in chemistry, physics, geology, economics, mathematics: and at least two years of French or German.

Several staff members of the Appalachian Forest Experiment Station are engaged in co-operative research projects in the Duke Forest. Specialists from this station and other prominent members of the U.S. Forest Service and representatives of forest and wood-using industries give occasional scheduled lectures at the School.

## EDUCATIONAL FACILITIES

The School of Forestry is located partly in Few Quadrangle and partly in the Biology Building along with the Departments of Botany and Zoology. The administrative offices, two classrooms, and the forest mensuration and statistical laboratory are in Few Quadrangle, while other laboratories and offices and the School Library are in the Biology Building. The Biology Building contains, in addition to classrooms, laboratories, and offices, a library, three refrigerated rooms, an incineration room, a workshop, and eight dark-rooms. The School is provided with instruments and tools for use in both field and laboratory work in silvics, silviculture, and forest mensuration. Modern surveying instruments and accessory equipment are available for work in forest surveying.

Laboratories for work in wood anatomy and properties are provided with microtechnique and photomicrographic instruments, wood-working machinery: a Henderson dry kiln, and a 50,000 -pound Olsen Universal timber-testing machine, in addition to a glue and plywood laboratory. A modern forest soils laboratory equipped for physical and chemical studies is available. In the field of seasoning and preservation of wood a com-mercial-sized, single-compartment dry kiln and a fully equipped experimental pressure treating cylinder are available for instruction and research.

Facilities are also available for advanced work in plant physiology, plant anatomy, plant taxonomy, genetics, plant ecology, plant pathology, and the several branches of zoology. Many rooms in the Biology Building are equipped with vacuum, compressed air, direct and alternating electric current, gas, and rumning water.

The forestry section of the Library contains a growing collection of material on forestry, soils, and closely related subjects. It includes im-
portant books and periodicals in English and in French, German, and certain other foreign languages. The Library is well provided with American material, including Federal and State documents and reports. Over 150 periodicals and serials of importance in forestry and related fields are received by subscription or exchange.

Greenhouses, connected to the Biology Building through a soil-storage and work room, provide adequate space for experimental work.

A nursery has been established by the University for the joint use of the Sarah P. Duke Floral Garden, the Botany Department, and the School of Forestry. The forestry section of this nursery is used mainly for the growing of planting stock for the Arboretum and trees needed for research or other special purposes.

The School sponsors occasional lectures on forestry and conservation by speakers of national reputation.

An active Forestry Club is maintained as a student organization to bring the members of the School and students in the undergraduate academic-forestry curriculum into close contact and to afford opportuniiies for extracurricular activities not otherwise available.

## THE DUKE FOREST

The Duke Forest, located in Durham and Orange counties, North Carolina, consists of three main units; namely, the Durham, New Hope Creek, and Hillsboro divisions. Early in the development of Duke University it was recognized that the possession of such an area offered an unusual opportunity for the development of educational work in forestry.

Situated on the lower Piedmont plateau at elevations ranging from 280 to 650 feet, and composed of second-growth shortleaf and loblolly pines, oak, gum, hickory, maple, yellow poplar, ash, and other hardwoods, the Forest is representative of the various types of timber growth found throughout the region. Over a hundred different species of trees are found within or near the Forest. The land is rolling and there is relatively little rock outcrop, swamp, or other land of low productivity for timber growing. The total area of the Forest proper, exclusive of the University campus, is over seven thousand acres.

In developing the Duke Forest the following objectives are being emphasized:

1. Demonstration of the various methods of timber growing, silvicultural treatment, and forest management applicable to the region.
2. Development as an experimental forest for research in the problems of timber growing and in the sciences basic thereto. In spite of the present timber situation and the accompanying economic ills, the lechnical and scientific knowledge required to handle forest crops efficiently on a permanent basis is still largely lacking. The Duke Forest affords a place where studies may be carried on to augment this knowledge for the large region of which the local forest and soil conditions are representative.
3. To serve as an outdoor laboratory where field work can be carried on by forestry students under the guidance of the Forestry Faculty. One of the most difficult problems in forestry education is to bring the students into contact with the realities of professional activities. With all operations in the Forest, both routine and research, recorded annually, it is possible for a qualified man to get in a short time a degree of practical knowledge or technical expertness which only an organized forest can provide.

The Duke Forest is particularly well located to serve as a field laboratory, since most of it is adjacent and easily accessible to the University campus. In fact, the Durham Division practically surrounds the West Campus, which was laid out in one corner of the Forest. A paved State highway runs lengthwise through the Durham Division, and several good roads cross the Forest. About fifteen miles of improved woods roads make all parts of the Forest readily accessible. A five-minute walk will take one well into the Forest, and any part of the Durham or New Hope Creek divisions can be reached by automobile in from ten to twenty minutes. At few other places in America can be found provision for forestry training and research which includes the necessary forest literally at the door of a large university with its instructional, laboratory, and library facilities.

Although the Forest has been but recently organized, considerable progress has been made toward carrying out the principal objectives recognized at the outset.

Most of the open land is, or until recently has been, cultivated. Open land which is not restocking naturally to forest trees is being planted. Here students have an opportunity to study at first hand the results of many experimental plantations prepared for them in advance. Arbitrarily by mixing species and varying the spacing between the trees in the plantations now being made, the foundation is laid for future research into many perplexing problems, such as species relationships and requirements, the most desirable spacing and species to use in this region, and the survival and relative rates of growth of the different species of trees.

A large number of permanent sample plots, ranging in size from one-tenth acre to over one acre, have been laid out in the Forest to study various problems. The plots are distributed through all the forest types, and range in purpose from studies of the effects of various silvicultural practices to studies of rates of growth and yields of the different timber types. Accurate records are kept on all this work, which will provide excellent material for student research. In the future many of these plots can also be used to demonstrate desirable forestry practices.

The work of putting the Forest under intensive management is well under way. Complete inventories of the Forest have been made, and tabulations showing the present volume and annual growth of each separate timber stand are at hand. Forest type and timber stand maps for each of the three divisions have also been completed. Each division has been subdivided into permanent compartments, and recommendations for the silvicultural treatment of the separate stands in each compartment, to be
embodied in a management plan, are being formulated. Cutting operations within the limits of annual growth are being carried on, and as markets for definite products are developed or expanded, such operations will be increased. To date, approximately 950 acres in the pine types have been thinned. These thinnings serve the dual purpose of contributing to the operation of the Forest as a going business and of demonstrating sound forestry practices. An efficient fire protection organization has been developed in co-operation with the State and Federal governments, and forest fire losses are being held to a minimum. In managing the Forest, public recreation activities are recognized. Several recreation areas have been established, and over fifteen thousand picnickers, hikers, and horseback riders use the area annually. The Durham and New Hope Creek divisions of the Forest, together with several hundred acres of neighboring privately owned land, are incorporated in an Auxiliary State Game Refuge to give the necessary protection which will ultimately result in an increased amount of game in the surrounding territory. Records are being maintained of all activities in the Forest, and these records will become increasingly useful as they are improved as a result of further experience and research. With the diversification and expansion of activities now going on, students have an opportunity to study an operating forest in all its phases and to obtain a grasp of the proper balance between theory and practice.

The Forest is admirably located for research in forest soils. An unusually large number of different soil conditions occur in the Forest because of the diversity of parent rock, topography, and past land culture. Major soil differences are due to the nature of the parent material which includes the basic rock of the Carolina Slate formation, granites, Triassic sedimentary rock, and many types of basic intrusives.

An exceptionally good opportunity exists for the conduct of forest research by graduate students due to the wide range in forest types, ages, and soil conditions within the Forest and its proximity to the laboratories, greenhouses, and other scientific equipment and library facilities of the University. Research has already been started on special problems, particularly in the fields of silvics, forest soils, forest-tree physiology, forest entomology, forest pathology, silviculture, forest management, and wood technology. The Forest is used not only for research in forestry but also for research in forest biology by members of allied departments.

## THE ARBORETUM

Of outstanding value in the teaching of both forestry and botany in the future is the provision for development of an arboretum. In their annual meeting on June 4, 1934, the Board of Trustees of Duke University, upon the recommendation of their Forestry Committee, voted to set aside permanently an area of over three hundred acres in the Forest to be used for arboretum purposes. The area lies adjacent to the main University campus immediately across the road from the Chapel.

Through the generosity of the late W. W. Flowers, of New York, a member of the Class of 1894 and a Trustee of the University, it has been
possible to develop preliminary plans and to make a number of plantings. This is naturally a long-time project, and many years will elapse before the Arboretum will be most useful and most attractive. The University Trustees' Committee on Forestry in its report to the Board refers to the Arboretum as follows:
"The Arboretum should serve as a station for the study of trees and woody plants as individuals and in small groups in their scientific relations, economic properties, and cultural characteristics, requirements, and possibilities. It should render an economic service by acting as a research laboratory where trees and shrubs can be studied from the viewpoint of a fuller utilization of their commercial possibilities. It should render a cultural service by serving as a center where foresters, landscape architects, nurserymen, gardeners, and the general public may increase their knowledge of indigenous trees and shrubs and where they may become acquainted with the foreign species that can be grown here. Within the University the Arboretum will supply living specimens and material for several branches of botany and forestry."

The development of the Arboretum will proceed along these lines as rapidly as arailable funds and planting stock will permit.

## FELLOWSHIPS, SCHOLARSHIPS, AND RESEARCH ASSISTANTSHIPS IN FORESTRY

A number of fellowships, scholarships, and research assistantships are available to men who offer promise of becoming leaders in the forestry profession. These will be awarded for high character and marked scholastic ability as judged by education, experience, and personal references.

Holders of the awards will pay tuition and such additional fees as are regularly required.

The awards are of three classes with stipends and special conditions as follows:
(1) Fellowships of $\$ 400$ to $\$ 600$ each. Each recipient must have previously completed work equivalent to that required at Duke University for a Master's degree with major in forestry or in a discipline basic to forestry. He will devote his entire time to an approved program of study and research in any of the branches of forestry. He is expected to become a candidate for the degree of Doctor of Forestry or Doctor of Philosophy.
(2) Scholarships at $\$ 250$ each. Each recipient will normally devote his entire time to an approved program of study leading to the degree of Master of Forestry or Master of Arts with a major in forestry.
(3) Research assistantships of $\$ 500$ each. Each recipient will devote half-time to field, laboratory, or other work of the research program of the School of Forestry. He will be permitted to enroll for not more than 20 semester hours in a school year on a program of study, or study and research, leading to the degree of Master of Forestry, Master of Arts, Doctor of Forestry, or Doctor of Philosophy.

The following arrangements are common to all fellowships, scholarships and research assistantships in forestry:
(1) Each applicant must have received a Bachelor's degree from an acceptable professional school of forestry or must be a graduate of a recognized college or university. If an applicant is not a graduate of a school of forestry, he must have had major work in botany or soil science and in the allied basic sciences. Each applicant must show reasonably high scholarship. Preference will be given to men who have already obtained technical or professional training in forestry.
(2) It is highly desirable that each applicant state as specifically as possible the field in which he wishes to study. The definite selection of a major field of work-one that is specific in purpose and involves training both in fundamentals and in technique-is very helpful to the Committee on Awards.
(3) Application blanks for fellowships, scholarships, and research assistantships may be obtained by writing to the Dean of the School of Forestry, Duke University, Durham, North Carolina. When the blank has been filled out by the applicant, it should be returned to the above address, and an official transcript of record showing college or university credits must accompany it or be forwarded promptly. The application and transcript must be filed not later than March 1 for consideration for the following academic year. In case vacancies occur, applications submitted on a later date may be considered.

## REQUIREMENTS FOR ADMISSION TO THE SCHOOL OF FORESTRY

The following general requirements of the School of Forestry apply to candidates for the Master of Forestry degree:

Admission to the School of Forestry presupposes that the applicant is either a graduate of a scientific school, college, or university of high standing, but without professional training in forestry; or that he is a graduate of a professional school of forestry of recognized standing. He will present not less than four years of credit of collegiate grade, with at least as many quality points as hours. ${ }^{1}$

An applicant with no professional training in forestry will present a certified transcript of his academic record showing that he has had conferred upon him a degree in arts, science, or engineering; and that he has satisfactorily completed undergraduate work in minimum amount as follows:

One year of botany, including the morphology, physiology, and identification of plants.

One year each of English and of chemistry.
One course each in physics and in the principles of economics.
Mathematics, through college algebra and trigonometry.

[^16]It is urged that an applicant without professional training in forestry present additional credits in the above subjects and in one or more of the following subjects: soils, geology, mineralogy, petrology, climatology, surveying, languages (particularly German and French), sociology, political science, philosoply, psychology, and zoology.

An applicant who is a graduate of a professional school of forestry of recognized standing will present a certified transcript of scholastic record showing the award of a degree. Before registering for the first semester of residence, such applicants will be required to select the branch or branches of forestry in which they wish to concentrate the major part of their work and to prepare their proposed programs in conference with the appropriate faculty adviser.

Students must make application for admission in advance of the opening of the school year. Those students entering without acceptable courses in plane surveying, forest surveying, and forest mensuration must take the twelve weeks of work in these subjects in the Summer Session, and are required to submit their applications prior to May 1. Students entering with advanced standing in surveying and forest mensuration should make application before September 1. Application blanks will be sent upon request made to the Dean of the School of Forestry.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF FORESTRY

The degree of Master of Forestry (M.F.) is conferred upon students who have satisfactorily completed two years of study in technical forestry and one term of twelve weeks' work in plane surveying, forest surveying, and forest mensuration in the Summer Session. In addition to the summer session work a total of not less than sixty semester hours' credit is required for the M.F. degree, of which at least fifty-five shall be obtained in the School of Forestry. Each student must obtain at least as many quality points as semester hours' credit under the quality-point system described in footnote 1 of the preceding section.

Field studies of typical timber-harvesting, manufacturing, and other utilization operations in the Coastal Plain are conducted by the School during a two week period in the spring semester as part of the work required of students registered in Forest Products Industries (Forestry 212). Other students may be permitted or advised to take this work for which one semester hour of credit may be earned by registering for it in Forestry 212A. A similar period of field work in silviculture in the Coastal Plain is available to students, who may receive one semester hour of credit for it by registering for Forestry 265A.

No student may take less than fifteen or more than eighteen hours in any one semester without special permission of the School of Forestry Faculty. The following work will ordinarily be required of all candidates for the M.F. degree:
S.H.
Plane Surveying (C. E. S110) ..... 3
Forest Surveying (F. S150) ..... 5
Forest Mensuration (F. S151) ..... 4
FIRST YEAR
First Semester Second Semester

Second Semester
Harvesting Forest Products Forest Products Industries (F. 212) ..... 3S.H.
Forest Entomology (F. 231) 3 Forest Pathology (F. 224) ..... 4
Sampling Methods (F. 251) 2 Silvics (F. 264) ..... 3
Dendrology (F. 253)3 Electives
Wood Anatomy \& Properties(F. 25.9)3
Forest Soils (F. 261) ..... 3S.H.
$\qquad$

SECOND YEAR

| Silviculture (F. 265) | Forest Valuation (F.282) ........ 3 |
| :---: | :---: |
| Forest Economics (F. 279) | Seminar (F. 292) |
| Forest Management (F. 281) | Thesis |
| Thesis | Electives |
| Electives |  |

Each candidate is required to file in the office of the Dean of the School of Forestry on or before May 1 three copies of a thesis, typewritten and bound in accordance with regulations set forth by the Faculty. The thesis shall be based upon an original study made in the field, laboratory, or library.

Work of equivalent grade done in residence at recognized schools of forestry may, with the approval of the Faculty, be accepted as credit toward the M.F. degree. A minimum of one year's residence is required at Duke University. Students who have had satisfactory undergraduate training in forestry may, with the approval of the Faculty, elect to devote the major portion of their time to research under the supervision of one or more members of the Faculty and prepare a more comprehensive thesis than is required of students entering the School without previous work in forestry. Students in the School of Forestry may take in allied departments of the University as electives certain courses approved by the Faculty.

## REQUIREMENTS FOR THE DEGREE OF DOCTOR OF FORESTRY

## THE DEGREE

The degree of Doctor of Forestry is a professional and research degree, involving both advanced study and research. It is based upon evidence of high attainments in a special branch of forestry knowledge or in the broad field of forestry, including the production of a thesis which
is the result of original work and which is a distinct contribution to knowledge in the field of forestry.

A student who plans to enter upon a program of work leading to the degree of Doctor of Forestry should consult or enter into correspondence with the Dean of the School of Forestry. He will then be advised as to the possibility of obtaining the necessary instruction and supervision of work in the fields desired.

## RESIDENCE

The normal period of resident graduate study, following satisfaction of the general requirements for admission to the Duke School of Forestry, is a minimum of two academic years after the student has obtained the graduate professional degree of Master of Forestry, or its equivalent. At least one of these two years of graduate study must be spent in actual residence at Duke University. With the approval of the Faculty of the School of Forestry work of equal grade done in residence at another college or university, or at a research station or institute not connected with a college or university, may be accepted toward a Doctor of Forestry degree. Only in connection with the preparation of the thesis will work be accepted that has been done elsewhere than in residence at a college, university, research station, or institute. A student whose undergraduate work is insufficient in amount or unsatisfactory in character may be required to spend additional time in preliminary courses essential as a basis for the graduate work he proposes to undertake.

Students whose research is concerned with the study of trees and forest stands in the Duke Forest during the growing season may find it necessary to be at the University during the summer.

Credit for one year of work done in regular terms of the Summer Session at Duke University may be given with the approval of the School of Forestry Faculty. Except in unusual cases, graduate work of fragmentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence.

## APPLICATION FOR CANDIDACY

No student will be admitted as a candidate for the degree of Doctor of Forestry until he has obtained the professional graduate degree of Master of Forestry or its equivalent, either at Duke University or at a professional school of forestry of recognized standing. A student desiring to become a candidate for the Doctor of Forestry degree is ordinarily required to file with the Dean of the School of Forestry, at the beginning of his graduate work toward this degree, a formal application indicating in which field and under what professor he proposes to carry on research. A committee of the Faculty will then be appointed to supervise the stucent's work, with the professor in charge of his research as chairman. If and when the committee finds that the preliminary requirements of the major field have been satisfied, the chairman of the committee will report
the fact in writing to the Dean of the School of Forestry. In the case of students who come to Duke University for only the last year of graduate work, and in special cases approved by the School of Forestry Faculty, the application for recognition as a candidate for the Doctor of Forestry degree may be filed later than provided above, but not later than October 15 of the academic sear in which it is desired that the degree le conferred.

## PROGRAM OF STUDY

The program of study of a candidate for the Doctor of Forestry degree will be arranged after consultation with the committee provided for in the preceding section and is subject to the approval of the Dean and Faculty of the School of Forestry. The student must select a major field and one or two minor related fields. Both major and minor may be selected in different branches of forestry or the minor may be taken in a related field in some other school or department of Duke University.

## FOREIGN LANGUAGES

A reading knowledge of two foreign languages is required. One language shall be either French or German, and the other optional to fit the requirements of the student's problem. No student may come up for his preliminary examination before having satisfied the language requirements for the Doctor's degree. Foreign language examinations are conducted by the appropriate language department or, in special cases, by a ciualified member of the Faculty of Duke University.

## PRELIMINARY EXAMINATION

Toward the end of the first full year of graduate work for the Doctor uf Forestry degree (or in special cases early in the second year), a preliminary examination of each candidate will ordinarily be held covering the general field of his studies. This examination will be conducted by the committee in charge of the student's work and will be written. A student who passes the examination will be recognized as a candidate for the Doctor of Forestry degree. A student's major and minor subjects will ordinarily be included in this preliminary examination.

If a student fails on his first examination, he may make a second attempt after six months upon recommendation of his committee and the approval of the Dean of the School of Forestry. Two failures on this examination make the student ineligible to continue work toward the Doctor of Forestry degree at Duke University.

## THESIS

The thesis for the Doctor of Forestry degree must be a contribution to knowledge. The subject of the thesis must be filed with the Dean of the School of Forestry on or before October 15 of the academic year in which the candidate desires to take the final examination for his degree. The subject must receive the written approval of the professor under whom the thesis is being written and of the Dean of the School of For-
estry. The thesis must be completed to the satisfaction of the major professor. Four typewritten copies in approved form must be deposited with the Dean of the School of Forestry on or before April 15 if the student desires to be examined on the thesis in the same academic year. The title page must be approved by the Dean of the School of Forestry. Two of the copies, the original and a carbon copy, are placed in the School of Forestry library, one copy goes to the major adviser, and one is returned to the student.

The candidate's thesis must be published either in its original form or in a modified form approved by the Dean of the School of Forestry and the committee in charge of the candidate's work. In its published form the title page should include this statement: "A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Forestry in the School of Forestry of Duke University." Ten copies of the published thesis should be deposited in the office of the Dean of the School of Forestry within a reasonable time after publication. The degree will not be conferred until publication of the thesis, in approved form, within three years has been guaranteed in a way satisfactory to the Dean of the School of Forestry and the professor under whom the thesis was written.

## FINAL EXAMINATION

The final examination will be on the thesis and on related subject matter and will be oral. Approximately one year must elapse between the date of the preliminary examination and the final examination, except in special cases approved by the School of Forestry Faculty. Two failures on this examination make a student ineligible to continue work toward the Doctor of Forestry degree at Duke University. The second examination may be given only upon the recommendation of the professor in charge of the thesis and the approval of the Dean of the School of Forestry:

## GRADING

Members of the Faculty are expected to report grades of graduate students to the School of Forestry Office not later than February 15 for the first semester and not later than June 15 for the second semester on the cards provided for that purpose. An average grade of " $B$ " or better will be required for all work, beyond that for the degree of Master of Forestry, that is to be credited toward the Doctor of Forestry degree. A mark of "Incomplete" may be given when a student has failed, for an acceptable reason, to complete some portion of the required work in which his standing is generally satisfactory. Unless a report is made within one year that the work has been satisfactorily completed, all credit will be lost.

## FORESTRY IN THE GRADUATE SCHOOL

Graduate work toward the Master of Arts and Doctor of Philosophy degrees in the more scientific branches of forestry is available to adequately prepared students at Duke University. This work is given through the Division of Forestry of the Graduate School of Arts and Sciences by certain members of the School of Forestry Faculty.

The following special conditions will influence the acceptance of students for graduate study in forestry: The student must have received a degree from a professional school of forestry of recognized standing or from an approved college or university: Graduates of professional schools of forestry must also have had adequate training in liberal arts and sciences, approximating 86 semester hours, before being admitted to candidacy for the Master of Arts or Doctor of Philosophy degree. College graduates who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology: may pursue graduate study and research only in the specialized fields for which their previous work has qualified them.

The Forestry Staff will determine whether a student is qualified to pursue graduate study in any of the special fields of forestry in which work is available.

The Master of Arts and Doctor of Philosophy degrees are attained through scientific work rather than technical or professional training in forestry. Work for these degrees may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, forest entomology, silvics, forest soils, forest mensuration, forest management, and forest economics, except that a major cannot be taken in forest management. A student upon registration chooses a field of study which may lie in two or more departments. The members of the Graduate School Faculty best qualified in that field are named as the student's advisory committee, regardless of the department of which they are members. This committee will advise the student in the planning and conduct of his work and will evaluate it when completed.

A reading knowledge of French and German must be acquired early in the course of graduate study in forestry because much of the forestry literature of the world is written in or has summaries in these languages. For the $\mathrm{Ph} . \mathrm{D}$. degree the language requirement must be met before the preliminary examination is taken and usually before the preparation of the thesis is begun.

The length of time required for a student to obtain the Master of Arts and Doctor of Philosophy degrees in forestry is determined by the character of his previous work and by the quality of his work in the Graduate School. Upon the recommendation of the Forestry Staff and with the approval of the Council on Graduate Instruction, work of equal grade done in residence at another college or university, or at a research
station or institute not connected with a college or university, may be accepted toward a Ph.D. degree, but at least the last year of the first two years of graduate study must be spent in actual residence at Duke University. Only in connection with the preparation of the thesis will work be accepted that has been done elsewhere than in residence at a college, university, or research station.

Students whose research is concerned with the study of trees and forest stands in the Duke Forest during the growing season may find it necessary to be at the University during the summer.

The field of study may include advanced work in allied subjects as well as advanced work in forestry. The student should have covered, however, most of the basic subjects prior to entering the Graduate School. The required advanced work will depend upon the student's previous training and the special field of study selected. Before beginning his work a student must obtain approval of his proposed program of study, including the plans for the research for his thesis. Courses of study must be correlated with each other and with the thesis research.

For further information on requirements for admission to the Graduate School of Arts and Sciences and on the general requirements for the Master of Arts and Doctor of Philosophy degrees reference should be made to the Bulletin of the Graduate School of Arts and Sciences.

# COURSES AND SUBJECTS OF INSTRUCTION 

With the exception of the summer session courses, odd-numbered courses are offered in the autumn semester, and even-numbered courses are offered in the spring semester.

## IN THE SUMMER SESSION

C.E. S110. Plane Surveying.-A special section of C.E. S10 intended for students in Forestry and others of advanced standing. Three weeks, nine hours a day. 3 s.h. Professors Bird and W. H. Hall, and Assistant [Not offered summer 1946]

Professor Williams
S150. Forest Surveying.-Application of plane surveying to forest problems; practice in making boundary and topographic surveys of forested tracts, using both intensive and extensive methods. Work includes use of transit, level, traverse board, topographic abney and slope tape, and aneroid barometer: Prerequisites: Civil Engineering, S110, plane surveying, or equivalent. Five wicks, eight hours a day. 5 s.h. (w)

Professor Maughan
[Not offered summer 1946]
S151. Forest Mensuration.-Field studies in methods of measuring content and growth of trees and forest stands; practice in timber estimating, $\log$ scaling, use of mensurational instruments, and collection of basic data. 4 s.h. (w)

Professor Schumacher

## FOR SENIORS AND GRADUATES

211. Harvesting Forest Products.-Methods of harvesting and transporting to utilization plants all products obtained from forests, including saw logs, pulpwood, poles, ties, stave and veneer bolts, naval stores, distillation wood, and other commercial commodities, with emphasis on application of methods best adapted to managed forests in important forest regions of North America and consideration of costs. 3 s.h. (w) Professor Wackerman
212. Forest Products Industries.-Preparation, manufacture, and use of tree products for all purposes including lumber, paper, naval stores, veneer, cooperage, boxes, distillation, and other specialized products with emphasis on methods of manufacturing and kinds of wood required for various commodities. Inspection of typical forest operations and forest products manufacturing plants in the South during two weeks of spring semester. 3 s.h. (w)

Professor Wackerman
213. Seasoning and Preservation of Wood.-Principles of seasoning lumber and other forest products by air drying and kiln drying, types of kilns and their operation; principles, methods, and materials used in treating wood to increase its durability. 3 s.h. (w)

Professor Wackerman
214. Marketing Forest Products.-Methods of selling and distributing timber, lumber, and other forest products in domestic and foreign trade; transportation methods; promotional activities of trade associations; competition between producing regions for markets and problems arising from the development of wood substitutes. Prerequisites: Forestry 211 and 212, or equivalents. 3 s.h. (w)

Professor Wackerman
224. Forest Pathology.-Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2, and Forestry 253, or equivalents. 4 s.h. (w)

Professor Wolf
231. Forest Entomology.-Morphology, general classification, life histories, and control of insects injurious to forest trees, logs, and lumber. 3 s.h. (w)

Professor Beal
236. Forest Game Management.-Characteristics and life histories of forest animals; interrelationship between animals and forests; management of iorest animals for revenue; control of noxious species. 3 s.h. (w)

Professor Beal
251. Sampling Methods in Forestry.-Statistical background for solution of sampling problems with special reference to sample inventory of a forest property. Prerequisite: Forestry S151. 2 s.h. (w) Professor Schualacher
252. Forest Mensuration.-Empirical equations and curve fitting appropriate for construction of timber yield tables, tree volume and taper tables; significance tests and graphical solution of equations. Assignments require operation of calculating machines. Prerequisite: Forestry 251. 2 s.h. (w)

## Professor Schumacher

253. Dendrology.-Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 3 s.h. (w)

Professor Harrar
256. Wood Pulp and Pulp Products.-Characteristics of pulp and paper fibres; processes employed in pulp manufacture; methods of refining and testing pulps; theory and practice of bleaching and hydration; the manufacture of papers and other cellulose derivatives. Prerequisites: Forestry 212 and 259, or equivalents. 3 s.h. (w)

Professor Harrar
257. Design of Forestry Experiments and Analysis of Data.-Role of experimental design in field and laboratory, and statistical analysis of data as aspects of scientific method in forest research. 5 s.h. (w)

Professor Schumacher
259. Wood Anatomy and Properties.-Anatomical, chemical, and nonmechanical physical properties of wood; macroscopic and microscopic identification of more important woods of the United States. Prerequisites: one year of botany and Chemistry 1 and 2 , or equivalents. 3 s.h. (w)

Professor Harrar
260. Timber Mechanics.-Comprehensive study of mechanical properties of wood and factors affecting its strength; strength-moisture relationships; standard methods of timber testing and application of strength data in development of working stresses; use of graphic statics in analysis of stress in wooden structures. Prerequisites: Physics 1 and Forestry 259, or equivalents. 3 s.h. (w)

Professor Harrar
261. Forest Soils.-Origin, development, and classification of soils with special emphasis on those developed in climates supporting forests; morphological, physical, and chemical properties of soils in relation to growth of trees; field identification, field sampling, laboratory analysis, and interpretation of field and laboratory observations; interrelationships of soil and forest cover. Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents ; physical geology and analytical chemistry are also desirable. 3 s.h. (w)

Associate Professor Coile
264. Silvics.-Ecological foundations of silviculture with special reference to forest site factors; influence of forests on their environment; growth and development of trees and stands; origin, development, and classification of forest communities; methods of studying forest environments. Desirable prerequisites: plant physiology, plant ecology, and Forestry 253 and 261, or equivalents. 3 s.h. (iv)

Professor Korstian
265. Theory and Practice of Silviculture.-Principles governing natural regeneration and treatment of forest stands and their applications to main commercial forest species, types, and regions of temperate North America; reproduction methods, intermediate cuttings, cultural operations, and silvicultural plans. Field practice includes marking timber for various kinds of cuttings, cultural treatments, preparation of plans for silvicultural treatment of forests, and study of intensively managed forests. Prerequisite: Forestry 264 or equivalent. 5 s.h. (iv)

Professor Korstian
266. Forest Seeding and Planting.-Place of artificial regeneration in practice of forestry; reforestation surveys and plans; collection, extraction, cleaning, testing, and storage of forest tree seeds; direct seeding; nursery practice; forest planting. 2 s.h. (w)

Professor Korstian
273. Forest Protection.-Fundamental principles of forest protection ; protection against atmospheric agencies, injurious plants, insects, domestic animals, and wildlife; causes of forest fires and their prevention; presuppression activities: fire suppression; fire control costs and standards; fire plans. 2 s.h. (w)

Associate Professor Thomson
276. Forestry Policy.-Critical study of forestry movement and development of a forestry policy, particularly in United States; brief résumé of forestry in important foreign countries; public land laws of United States; development of Federal and State forestry; forestry laws. 2 s.h. (w)

Associate Professor Thomson
279. Economics of Forestry.-Principles of forest economics. Economic and social values of forests; forest resources and wood requirements; economics of wood production and consumption; prices of forest products; forestry and public finance; forestry and land use; forestry credit; forest fire insurance; forestry as a private business enterprise. Prerequisite: at least one course in the principles of economics. 3 s.h. (w)

Associate Professor Thomson
281. Forest Management.-Principles of organizing forest properties for systematic management including surveys, inventories, subdivisions, and preparation of management plans for control of operations; principles of forest regulation, actual and normal forests, rotations, cutting cycles, and methods of regulating the cut for sustained yield. Prerequisites: Forestry S150, S151, and 251 , or equivalents. 4 s.h. (w)

Professor Maughan
282. Forest Valuation.-Principles involved in appraising value of forests as business enterprises; valuation of land and timber, soil rent and forest rent theories, cost values, market values and capital values, profit, and rate earned; appraisal of stumpage values and damage appraisals; financial aspects of sustained yield management compared with destructive logging. Prerequisite: Forestry 281 or equivalent. 3 s.h. (w) Professor Maughan
292. Seminar.-Interrelation of various branches of forestry in their application to forestry problems; assigned topics with special reference to current forestry activities. 1 s.h. (w)

The Staff
211 A to 282 A. Special Studies in Forestry.-Work on the same level as the foregoing Senior-Graduate courses to meet the needs of individual students. Credits and hours to be arranged.

The Staff

## FOR GRADUATES

301-302. Advanced Studies in Forestry.-Credits to be arranged. To meet individual needs of graduate students in the following branches of iorestry:
a. Silvics.-Prerequisites : Forestry 253, 261, and 264, or equivalents.

Professor Korstian
b. Forest Soils.-Prerequisite : Forestry 261 or equivalent.

Associate Professor Coile
c. Silviculture.-Prerequisite : Forestry 265 or equivalent.

Professor Korstian
d. Forest Management.-Prerequisite : Forestry 281 or equivalent.

Professor Maughan
e. Forest Economics.-Prerequisite: Forestry 279 or equivalent.

Associate Professor Thomson
f. Wood Anatomy and Properties.-Prerequisites: Forestry 259 and 260 , or equivalents.

Professor Harrar
g. Forest Mensuration.-Prerequisites: Forestry S151, 251, and 252, or qquivalents.

Professor Schumacher
h. Forest Entomology.-Prerequisite: Forestry 231 or equivalent.

Professor Beal
i. Forest Utilization.-Prerequisites: Forestry 211 and 212, or equivalents. Professor Wackerman
j. Dendrology.-Prerequisite : Forestry 253 or equivalent.

Professor Harrar
311. Advanced Forest Utilization.-Analysis of the principles of determining the cost of and returns from harvesting timber for various products and other uses of forests; study of factors governing the relation of tree size to net stumpage values; and the application of these principles and methods in the solution of actual case problems. Prerequisite: Forestry 211 or equivalent. 2 s.h. (w)

Professor Wackerman
323-324. Advanced Forest Pathology.-Advanced study and research on life histories and control of diseases of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and forest pathology. Credits to be arranged.

Professor Wolf
351-352. Advanced Physiology of Forest Trees.-Advanced study and research on problems in physiology of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged.

Professor Kramer
354. Forest Soil Fertility.-Experimental approach to the problems of fertility in forest soil. Influence of stand composition on nitrogen transformation. Methods of studying the exchange complex and the significance of base exchange in forest soil fertility. Prerequisites: Forestry 251 and 261, and plant physiology, or equivalents; bacteriology and analytical and organic chemistry are desirable. 3 s.h. (w) Associate Professor Colle
356. Economic Forces in Forestry.-Critical analysis of classical and contemporary doctrines of comparative forest valuation. Principles underlying the measurement of forces affecting values of land for forestry and alternative uses and investments of capital. Solution of problems involving procedures hased upon these principles. Prerequisites: Forestry 279 and 282, or equivalents; courses in economic theory are desirable. 2 s.h. (w)

Associate Professor Thomson
357-358. Research in Forestry.-Credits to be arranged. Students who have had adequate training may do research under direction of members of the Faculty in the branches of forestry indicated under courses 301-302 with the same prerequisites as thereunder noted. Each branch to bear the same letter designation as under Courses 301-302.

The Staff

## FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking laboratory courses. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

## GENERAL FEES

Matriculation, per semester ..... $\$ 25.00$
Tuition, per semester ..... 100.00
Room-rent-see the detailed statement that follows.
Athletic Fee, admitting students to all athletic contests held on the University grounds, per semester ..... 5.00
Damage Fee, payable annually at the time of first registration ..... 1.00
Medical Fee, per semester ..... 5.00
Library Fee, per semester ..... 5.00
Commencement Fee, payable once by graduate students in the last semester before a degree is conferred ..... 3.00
Diploma Fee, payable by candidates for degrees, at the beginning of the second semester, refunded if the diploma is not awarded ..... 5.00For further information concerning room-rent, see below.

## SPECIAL FEES

Graduate students in the sciences are required to pay the special laboratory fees for courses as fixed by the various departments. An administrative fee is charged in connection with special research in the summer under direction of a member of the Faculty. Special laborafory and materials fees in forestry are as follows:

Forestry 224, 253, 359, 260, 264, 301a, 302a, and 357a, and 358a .......... $\$ 2.50$
Forestry 261, 351-352, 354, 301b, 301f, 302b, 302f, 357b, 357f, 358b, and 358 f
$\$ 2.50$ to $\$ 5.00$

## TRANSCRIPTS

A student desiring to transfer from Duke University to another institution is entitled to one transcript of his record. A charge of one dollar is made for each additional copy.

## PAYMENTS TO FELLOWS AND SCHOLARS

Payments by the University of stipends to fellows, research assistants, and scholars are made in four installments, on November 25, January 25, March 25, and May 25. Fellows and scholars are required to pay the regular tuition fee and such additional fees as are ordinarily required of graduate students.

## ROOMS AND CONDITIONS OF RENTING THEM

## Room-Rent for Men of Duke University

Single room, per semester ...................................................... . . $\$ 75.00$
Double room, per student, per semester ........................................ 62.50
Rooms are reserved only for students who have been officially accepted by the University. They are rented for no shorter period than one semester. The occupancy of a room for a period of less than one semester will cost the student $\$ 1.00$ each day unless the occupant makes the necessary arrangements with the Director of the Business Division before occupying the room. A room deposit of $\$ 25.00$ is required of each applicant for admission. The fee is deducted from the room charges at the time of registration for the full semester. The reservation fee will be refunded to any applicant not accepted by the University provided the official receipt for the fee, given to all paying it, is presented either in person or by letter to the Treasurer's Office, but students who make application and are accepted will not be entitled to have the reservation fee refunded unless the request is made on or before August 1.

A resident student who wishes to retain his room for the succeeding year must first pay a reservation fee of $\$ 25.00$ to the Treasurer's Office and then notify the office of the Director of the Business Division on or before May 15. All rooms which have not been signed for on or before May 15 will be considered vacant for the succeeding year. When a room is once engaged by a student, no change will be permitted except with the consent of the Director of the Business Division. Leaving one room and occupying another without permission is strictly against the rule and will render the offender liable to a charge for both rooms for the entire semester. No occupant is permitted to rent or sublet a room to another occupant. The use of a room for merchandising of any kind is strictly forbidden.

The University does not assume the responsibility of selecting and assigning rooommates, though it will gladly render any assistance possible in the matter.

## DORMITORIES FOR MEN

On the West Campus there are four groups of dormitories, Craven, Crowell, Kilgo, and Few. Each group forms a quadrangle enclosing a court. Few Quadrangle is reserved especially for the use of graduate and professional school students.

## BOARDING ACCOMMODATIONS

West Campus.-Beginning with the academic year 1930-31 the University opened its dining hall in the Union on the West Campus with accommodations sufficient to provide in a superior way for all resident men students. Food costs range from $\$ 1.00$ to $\$ 1.50$ per day.

The Union is the logical center of student activities for men, and it will be found desirable for male students to board in its supervised halls.

In the Union are located the University Post Office, the University Store. the University Barbershop, and all publication staff offices.

In addition to the Union dining halls, a coffee shop is operated for the convenience of students and visitors.

## ESTIMATED EXPENSES FOR AN ACADEMIC YEAR

The necessary expenses of a graduate student are moderate: the University dormitories provide thoroughly comfortable and wholesome living conditions at a minimum cost, while all charges made by the University have been kept low. Incidental expenses naturally depend upon the tastes and habits of the individual. The following table gives the necessary college expenses for one year:

|  | Low | Moderate | Liberal |
| :---: | :---: | :---: | :---: |
| Tuition | \$200.00 | \$200.00 | \$200.00 |
| Matriculation | 50.00 | 50.00 | 50.00 |
| Room-rent | 100.00 | 125.00 | 150.00 |
| Board | 270.00 | 337.00 | 400.00 |
| Laundry | 20.00 | 25.00 | 35.00 |
| Books | 22.50 | 30.00 | 45.00 |
| Library Fee | 10.00 | 10.00 | 10.00 |
| Athletic Fee | 10.00 | 10.00 | 10.00 |
| Damage Fee | 1.00 | 1.00 | 1.00 |
| Medical Fee | 10.00 | 10.00 | 10.00 |
| Total | \$693.50 | \$798.00 | \$911.00 |

## ENROLLMENT, 1945-46

## STUDENTS IN THE SCHOOL OF FORESTRY

*Adams, George L. State Teachers Collegorristown, N. J. B.A., Montclair State Teachers College, 1935GG-320
**Anderson, George Arthur .........Northbrook, Ill. 110 E. Markham Ave.B.S., Colorado State College, 1940
Baskervill, William Nelson ..........Worsham, Va. ..... GG-222
B.S., Hampden-Sydney College, $19+2$
**Galbraith, John Ross ................ Henderson, Temn. ..... GG-323 B.S., Colorado State College, 1936
**Goebel, Norbert Bernard .......... Racine, Wis. 515 S. Duke St.B.S., Colorado State College, 1940
Heberling, Ralph Bloom Spartanburg, S. C. Duke University
B.S., Pennsylvania State College
Marra, George G. Webster, N. Y. ..... GG-324
B.S., New York State College of Forestry, 1940M.S., New York State College of Forestry, 1942
**Plowden, John Gabriel Summerton, S. C. ..... GG-320B.S.F., University of Georgia, 1941
**Somberg, Seymour Ira .............Miami, Fla. ..... GG-226B.S., Iowa State College, $19+1$
**Stoehr, Henry Arthur Trezevant, Tenn. 110 E. Markham Ave.B.S., University of Minnesota, 1933
**Watkins, Virgil Gray .............Kent's Store, Va. 913 Buchanan Blvd. B.S., University of Virginia, 1937
**Young, Harold Edle ..................Miami, Fla. 1508 Dexter St. B.S., University of Maine, 1937
Total ..... 12
STUDENTS OF FORESTRY IN THE GRADUATE SCHOOL OF ARTS AND SCIENCES
Barnes, George Hector Corvallis, Ore. ..... GG-321
B.S.F., University of Washington, 1924
M.F., University of California, 1929Matte, LorenzoRimoushi, Que., Canada1603 Duke University Road
B.A., Université Laval, 1932
Bachelor of Surveying, Université Laval, 193Forestry Engineer, Université Laval, 1939M.F., Duke University, $19+4$
Total ..... 2
ACADEMIC-FORESTRY SENIOR
Warner, John Robinson Walkersville, Md. 818 Wilkerson Ave.

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## INSTITUTIONS REPRESENTED

Colorado State College 3 University of California ..... 1
Duke University 1 University of Georgia ..... 1
Hampden-Sydney College 1 Université Laval ..... 1
Iowa State College 1 University of Maine ..... 1
Montclair State Teachers College 1 University of Minnesota ..... 1
New York State College University of Virginia ..... 1
of Forestry 1 University of Washington ..... 1
Pennsylvania State College 1 Total Institutions ..... 14
GEOGRAPHICAL DISTRIBUTION
United States
Florida 2 South Carolina ..... 2
Illinois 1 Tennessee ..... 2
New Jersey 1 Virginia ..... 2
New York 1 Wisconsin ..... 1
Oregon 1 Total States ..... 9
Foreign Countries
Canada ..... 1
GENERAL SUMMARY
Students in the School of Forestry ..... 12
Students of Forestry in the Graduate School of Arts and Sciences ..... 2
Academic-Forestry Senior ..... 1
Total Enrollment ..... 15
Total number of institutions represented ..... 14
Total number of states represented ..... 9
Total number of foreign countries represented ..... 1

# BULLETIN OF DUKE UNIVERSITY 

College of Engineering


1945-1946
ANNOUNCEMENTS FOR 1946-1947

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PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA
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## ANNUAL BULLETINS

For General Bulletin of Duke University, apply to The Scerctary, Duke University, Durham, N. C.

For Bulletin of Undergraduate Instruction, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to The Secrctary, Duke University, Durham, N. C.

For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Laif, apply to The Dcan of the School of Lazi, Duke University, Durham, N. C.

For Bulletin of The School of Menicine, apply to The Dean of the School of Medicinc, Duke University, Durham, N. C.

For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

For Bulletin of The Divinity School, apply to The Dean of the Divinity School, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forcstry, Duke University, Durham, N. C.

For Buleetin of The Summer Session, apply to The Director of the Summer Session, Duke University, Durlam, N. C.

[^18]
## BULLETIN

OF

# Duke University 



# COLLEGE OF ENGINEERING 

1945-1946
ANNOUNCEMENTS FOR 1946-1947

DURHAM, NORTH CAROLINA
1946

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## CALENDARS OF THE COLLEGES

1946
June $27 \begin{gathered}\text { Thursday, 9:00 A.m.-Registration of students for Summer Ses- } \\ \text { sion, first term. }\end{gathered}$ 28 Friday, 8:00 九.m.-Instruction begins for Summer Session, first term.
July 4 Thursday-Independence Day: a holiday.
Aug. 8 Thursday-First term of Summer Session ends. Registration for second term.
Aug. 9 Friday, 8:00 A.m.-Extended term of Summer Session begins.
Aug. 29 Thursday-Extended term of Summer Session ends.
Sept. 12 Thursday, 9:00 A.m.-Dormitories open to Freshmen.
Sept. 12 Thursday, 7:30 P.M.-Assembly for all entering Freshmen; Freshman Orientation Program begins, Trinity College and College of Engineering.
Sept. 12 Thursday, 8:00 p.m.-Assembly for all entering Freshmen; Freshman Orientation Program begins, Woman's College.
Sept. 17 Tuesday-Registration and matriculation of new students with advanced standing, Woman's College.
Sept. 18 Wednesday, $11: 00$ A.m.-Formal Opening of the College.
Sept. 19 Thursday-Instruction begins.
Sept. 19 Thursday-Assembly of all students, Woman's College.
Nov. 28 Thursday-Thanksgiving Day: a holiday.
Dec. 11 Wednesday-Duke University Day.
Dec. 20 Friday, 1:00 p.m.-Christmas recess begins.

## 1947

Jan. 3 Friday, 8:00 A.M.-Instruction is resumed.
Jan. 18 Saturday-Mid-year examinations begin.
Jan. 28 Tuesday-Mid-year examinations end.
Jan. 29 Wednesday-Last day for matriculation for second semester.
Jan. 30 Thursday-Second semester begins.
March 22 Saturday, 1:00 P.M.-Spring vacation begins
March 31 Monday, 8:00 A.m.-Instruction is resumed.
April 18 Friday-Last day for submitting orations for Wiley Gray Contest.
April 30 Wednesday-Last day for selection of courses for ensuing year.
May 9 Friday-Earliest date for beginning of Honors examination.
May 19 Monday-Final examinations for second semester begin.
May - 29 Thursday-Final examinations end.
May 31 Saturday-Commencement opens; Senior Class Day; meeting of the Board of Trustees.
June 1 Sunday-Commencement Sermon.
June 2 Monday-Commencement Address; Graduating Exercises.

## 1946



## 1947



## ADMINISTRATIVE OFFICERS

Robert Lee Flowers, A.M., LL.D.
President of the University
West Campus
William Hane Wannamaker, A.B., A.M., Litt.D.
Vice-President and Dean of the University
William Holland Hall, A.B., A.M., B.C.E., M.S.C.E. Dean, College of Engineering

922 Urban Avenue
Alan Krebs Manchester, A.B., A.M., Ph.D.
Dean of Freshmen
Myrtle Drive
William Allen Tyree, A.B.
Director in the Business Division
610 Buchanan Boulevard

## EXECUTIVE COMMITTEE, COLLEGE OF ENGINEERING

W. H. Hall, Chairman
W. A. Tyree, Secretary
IV. J. Seeley
H. C. Bird
R. S. Wilbur

## INSTRUCTIONAL STAFF

Harold Crusius Bird, Ph.B., C.E.
Professor of Civil Engineering,
Chairnan of Department of Civil Engineering 1209 Virginia Avenue
William Holland Hall, A.B., A.M., B.C.E., M.S.C.E.
Professor of Engineering
922 Urban Avenue
Walter James Seeley, E.E., M.S.
Professor of Electrical Engineering,
Chairman of Department of Electrical Engineering 1005 Urban Avenue
Ralph Sydney Wilbur, B.S. in M.E., M.E.
Professor of Mechanical Engineering,
Chairman of the Department of Mechanical Engineering 1018 Demerius Street
Franklin Nicholas Egerton, A.B., A.M.
Instructor in Electrical Engineering
411 N. Gregson Street
Howard N. Haines, B.S.
Instructor in Engineering Drazeing
2307 Club Boulevard
William Arthur Hinton, B.S., M.S. in M.E.
Assistant Professor in Mechanical Engineering
2124 Englewood Avenue
Henry Hunter Jones, A.B., C.E.
Instructor in General Engineering 1505 Alabama Avenue
Van Leslie Kenyon, B.S. in M.E.
Instructor in Mechanical Engineering
Hillsboro, N. C.
Edward K. Kraybill, B.S. in E.E.
Instructor in Electrical Engineering
900 Dacian Avenue
Ralph E. Lewis, B.S. in M.E., M.S. in M.E.
Asssitant Professor of Mechanical Engineering 1308 Markham Avenue

Keith B. MacKichan, B.S. in E.E., M.S. in E.E., M.B.A. Assistant Professor of Electrical Engineering

113 St. Paul Street
Otto Meier, Jr., B.S. in E.E., M.S., E.E.
Associate Professor of Electrical Engineering 916 Monmouth Avenue
William McCormick Neale, B.E., M.E. Instructor in Mechanical Engineering

921 Monmouth Avenue
Aubrey E. Palmer, B.S. in Engr., C.E. Instructor in Civil Engineering

103 Turrentine Street
Frederick Jerome Reed, M.E., M.S. Associate Professor of Mechanical Engineering
Ernest S. Theiss, B.S. in M.E., M.S. Assistant Professor of Mechanical Engineering

2203 Englewood Avenue
2645 University Drive
Lewis Turtle, Col. U.S.A. Retired, B.S. Instructor in Engineering Drawing
*Charles Rowe Vail, B.S. in E.E. Assistant Professor of Electrical Engineering
James Wesley Williams, A.B., B.S. in C.E. Assistant Professor of Civil Engineering

Joseph Philip Edwards Laboratory Technician in Electrical Engineering

Clark Lee Allen, A.B., M.A., Ph.D. Assistant Professor of Economics

626 Swift Avenue
Ernest L. Badenoch, B.S., M.A. Instructor in Speech

2607 Chapel Hill Road
Charles Kilgo Bradsher, A.B., M.A., Ph.D. Assistant Professor of Chemistry

2302 Elder Street
David Williams Carpenter, A.B., A.M., Ph.D. Associate Professor of Physics

1604 B Street

Francis George Dressel, B.S., M.S., Ph.D. Associate Professor of Mathematics

206 Swift Avenue

William Stone Fitzgerald, A.B., A.M. Instructor in English 3 Powe Apartments, 603 Watts Street
John Jay Gergen, A.B., A.M., Ph.D. Professor of Mathematics

2803 Nation Avenue
Paul M. Gregory, A.B., Ph.D. Instructor in Economics 608 Buchanan Boulevard
$\dagger$ Louise Hall, B.A., S.B. in Architecture, Brevet d'Art de la Sorbonne Assistant Professor of Fine Arts

211 Faculty Apartments
George Harwell, A.B., A.M., Ph.D. Instructor in English

2016 Sunset Avenue
Arthur Owen Hickson, A.B., A.M., Ph.D. Assistant Professor of Mathematics
Douglas G. Hill, A.B., M.A., Ph.D. Associate Professor of Chemistry

Dixion Road

* Absent on leave, Nov. 1, 1945-1946.
$\dagger$ Absent on leave.

Marcus Edwin Hobbs, A.B., A.M., Ph.D. Associate Professor of Chemistry

115 Pinecrest Road
Archibald Currie Jordan, A.B., A.M. Assistant Professor of English

147 Pinecrest Road
Charles E. Landon, A.B., A.M., Ph.D. Associate Professor of Economics

1517 Edgevale Road
Ben Franklin Lemert, B.Sc. in Bus. Admin., M.A., Ph.D. Associate Professor of Economics

123 Pinecrest Road
Walter McKinley Nielsen, B.S. in E.E., Ph.D. Professor of Physics

139 Pinecrest Road
Karl Bachman Patterson, A.B., A.M. Assistant Professor of Mathematics

1024 Monmouth Avenue
William Walter Rankin, Jr., B.E., M.A. Professor of Mathematics

1011 Gloria Avenue
John H. Roberts, A.B., Ph.D. Associate Professor of Mathematics.

2813 Legion Avenue
C. Richard Sanders, B.Ph., M.A., Ph.D. Associate Professor of English

921 Monmouth Avenue
Joseph J. Spengler, A.B., M.A., Ph.D. Professor of Economics

2440 Cranford Road
John Y. Springer, A.B., M.B.A. Assistant Professor of Economics

Duke University
Robert H. Van Voorhis, A.B., A.M. Instructor in Economics

1002 Wells Street
Weldon Welfling, A.B., A.M., Ph.D. Associate Professor of Economics

Pickett Road
Robert North Wilson, A.B., M.S. Professor of Chemistry

822 Third Street Assisted by members of General Faculty listed in General Bulletin.

## COUNCIL ON ENGINEERING INSTRUCTION

President R. L. Flowers
Vice-President W. H. Wannamaker Dean W. H. Hall
H. C. Bird, Civil Engineering
W. J. Seeley, Electrical Engineering R. S. Wilbur, Mechanical Engineering
W. M. Nielsen, Physics
M. E. Hobbs, Chemistry

Frank de Vyver, Economics
C. R. Sanders, English
J. J. Gergen, Mathematics
W. A. Tyree, Secretary

## ENGINEERING COURSES OFFERED

## GENERAL STATEMENT

Duke University, through the College of Engineering, offers standard four-year courses in civil, electrical, and mechanical engineering, with an aeronautical option for mechanical engineers. These departments are housed respectively in Bivins, Asbury, Branson, and the Aeronautics Laboratory buildings. Allied subjects are taught on the East Campus in Carr, West Duke, and the Science buildings.

Curricula: All of the curricula of the College of Engineering are fully accredited by the Engineers' Council for Professional Development, recognized accrediting agency for engineering education. Fundamental training is given in English, mathematics, and the sciences, as well as in the technical subjects leading to professional work in civil, electrical, and mechanical engineering. Election of courses in the Department of Economics and Business Administration is encouraged in the belief that the combining of such courses with the rigorous engineering program affords excellent preparation for the types of commercial or industrial activities in which engineering training is most valuable.

Faculty: The members of the Instructional Staff have been chosen particularly for their ability to teach. Instruction is given in small sections, thereby insuring personal attention. The laboratory is used to supplement the classrooms, and at present the same instructor carries his class through both the classroom and laboratory work. This is made possible only where classes are limited in size.

Student Activities: Four national engineering societies, the American Institute of Electrical Engineers, the American Society of Civil Engineers, the American Society of Mechanical Engineers, and the Institute of the Aeronautical Sciences, are represented by student chapters operating under national charters. An honorary engineering fraternity, Delta Epsilon Sigma, was organized several years ago for the purpose of stimulating good scholarship among the engineering students. All five of these organizations afford unusual opportunities for the members to present papers and to conduct discussions in certain phases of engineering not covered in the classroon. Engineering students are in every sense a part of the student body of Duke University, enjoying the general advantages of the University and being subject to the general rules and regulations.

History: The teaching of engineering is not new at Duke University. From 1887 to 1893 formal courses in civil and mining engineering leading to the Bachelor of Science degree were offered by Trinity College. After their discontinuance in 1893, the teaching of engineering subjects was begun again in 1903 and has continued uninterruptedly since that time. At present three departments offer courses in civil, electrical, and
mechanical engineering leading to the degree of Bachelor of Science in these branches of engineering. These three departments constitute the College of Engineering.

## CIVIL ENGINEERING

The civil engineer's field of work may be divided into four major divisions: sanitary-dealing with water works, sewerage systems, and garbage disposal; hydraulic-interested in flood control, river improvement, irrigation, drainage, and water power; transportation-concerned with railroads, airports, highways, waterways, park systems, traffic control, and city planning; and structural-dealing with bridges, buildings, foundations, dams, tunnels, tanks, bins and various industrial structures. His function is chiefly one of design and construction, althongh often it includes maintenance. In order to train a student in these $1.1 r i o u s$ lines of effort, the following equipment is provided.

Highway Materials: Complete equipment is available for the preparation and routine testing of aggregates, cement, and bituminous materials. There is also a Hubbard stability machine for additional tests.

Sanitary Engineering: In the sanitary laboratory there is a complete equipment for performing the physical, chemical, bacteriological, and microscopic tests as outlined by the American Public Health Association. Different types of water current meters are available for work in stream gauging.

Soil Testing: This laboratory is fully equipped to carry out the experiments generally used in testing soil for highway purposes.

Cement Testing: There is available complete equipment for the testing of cement and aggregates, such as an automatic shot-testing machine, flow table, Ro-Tap sieve shaker, a two-hundred-thousand-pound hydraulic compression machine, and other necessary supplies.

Surveying: For use in the courses in surveying there are thirteen transits, twenty-one levels, a precise theodolite and a precise level, three plane table outfits, solar attachments, sextants, compasses, barometers, and other light equipment.

Stress Analysis: Advanced work in stresses is carried on by means of a large-sized Begg's deformeter and photoelastic equipment.

General Engineering Materials: This laboratory, housed in the Civil Engineering Building, contains the equipment necessary to give undergraduate and graduate instruction in the determination of the physical properties of materials. In the laboratory are two universal testing machines, torsion, fatigue, and impact machines, a proving ring, several hardness testers, and an exceptionally complete set of accessories and small instruments for the determination of the stress-deformation characteristics of steel, wood, and concrete.

## ELECTRICAL ENGINEERING

The field of electrical engineering covers the generation, transmission, distribution, and utilization of electrical energy: steam and hydroelectric
generating stations ; transmission system; distribution circuits ; communication by wire, radio, and television; transportation on land, sea, and air ; illuminination and manufacturing applications.

The Electrical Machinery Laboratory receives its electric power from the Duke Power Company over a 2300 -volt, 60 -cycle, three-phase line. The equipment includes a-c to d-c motor-generator set and an Ignitron rectifier for supplying the laboratory with direct current, four direct-connected d-c to d-c motor-generator sets; two d-c to a-c belted sets; a G.E. sine wave motor-generator set; a Westinghouse phase-displacement dynamometer ; a General Electric type a-c-d-c synchronous converter, for one-, two-, three-, or six-phase operation; numerous singlephase constant-potential transformers; a three-phase transformer; a constant-current transformer equipped with a typical load of series street lamps; a high-current testing transformer; three-phase induction regulators; numerous loading devices, both electrical and mechanical ; a number of representative d-c and a-c motors and generators; complete equipment for testing a large variety of fractional-horsepower motors. In addition, the equipment includes a complete line of indicating, recording, and graphic measuring instruments for both general testing purposes and precision measurements, and three oscillographs with accessories for viewing and photographing wave forms.

The Communications Laboratory is exceptionally well equipped and contains complete apparatus for carrying out all kinds of communication experiments at both audio and radio frequencies. The audiofrequency equipment includes a 200 -mile open-wire artificial telephone line, a vacuum tube amplifier-milliammeter-voltmeter, 6-A transmission measuring set, vacuum tube oscillators, calibrated for frequencies ranging from 25 to 100,000 cycles per second, a 1,000 -cycle motor-generator, a direct reading frequency meter reading from 20 to 20,000 cycles per second; impedance bridges for both audio and intermediate frequencies; standards of resistance, inductance, and capacitance; filters of various kinds; a high quality amplifier, power amplifiers, loud-speakers, noise meter, and other instruments for general test purposes. A complete Automatic Electric Company telephone exchange is included in this laboratory. The radio-frequency equipment consists of short wave and broadcast receivers, precision wave meter, automatic field strength recorder, field intensity meter, standard signal generator, cathode-ray oscillographs, an RCA dynamic demonstrator, an RCA Rider Chanalyst, a square-wave generator, thermo-couples for current and voltage determinations, condensers, inductors, and meters. Equipment for performing experiments in the ultra-high frequency region also is provided.

The Electronics Laboratory, adjoining the Communications Laboratory, is completely equipped for studies of vacuum tubes and vacuum tube circuits: power supply units, special high resistance meters, oscillators, vacuum tube voltmeters, thermo-couples, etc. Equipment which will ultimately be the nucleus of an industrial electronics laboratory has recently been acquired.

The Standardizing Laboratory is equipped with standard instruments for the purpose of checking and calibrating meters used in any of the other laboratories.

The High Voltage Laboratory, housed in a separate building adjacent to the other electrical laboratories, provides equipment for highvoltage testing and experimentation. A 10-KVA G. E. transformer provides for 60 -cycle testing up to 100,000 volts. A surge ("man-made lightning") generator composed of twenty-five $20-\mathrm{KV}$ G. E. capacitors provides 500,000 -volt surges for determining the effect of lightning strokes on electrical apparatus. Complete auxiliary equipment is avaliable for control and measurement of the observed phenomena.

The Illumination Laboratory is equipped with a variety of instruments for the measurement of illumination intensity, and provides facilities for special tests.

The Projects Laboratory is set aside for the use of students who are working on special projects requiring set-ups which cannot be disturbed by regular laboratory experiments. This laboratory is made available to Seniors who elect projects course 173-174.

The Electrical Circuits Laboratory is equipped with all necessary apparatus and instruments for carrying out experiments on direct current and alternating current circuits, such as studies of various types of meters, resistance and conductivity measurements, storage batteries, magnetic measurements, series and parallel circuits, power factor, etc.

The Amateur Radio Station, W4AHY, is equipped with a 75-watt crystal-controlled C. W. transmitter, a Collins 30 FXB 100 -watt phone transmitter, Hammarlund Pro receiver, National SW5 receiver, a pair of RCA tranceivers, and necessary testing and measuring equipment. The station is controlled and operated by the Engineers' Radio Association.

## MECHANICAL ENGINEERING

Mechanical engineering as a profession is concerned with power and machines to generate power and to apply it to useful ends. A field so broad includes all lines of industry, but among the special fields in which mechanical engineers are engaged are combustion or power production engineering, machine and machine-tool design, railway motive power, automotive engineering, aviation engineering, refrigeration, air conditioning, and industrial management.

In order to lay a foundation for a successful career in mechanical engineering, it is necessary to provide a tie between theory and practice, to become familiar with engineering apparatus and instruments as well as their testing and calibration. Laboratory work is therefore necessary. The equipment in the mechanical, materials processing, and aeronautics laboratories has been carefully arranged in a number of groups, to serve the needs of the undergraduate for efficiently carrying out the program indicated above.

## Branson Mechanical Laboratory

Boiler Room. The boiler room contains a one-hundred horsepower cil-fired boiler with complete accessories and controls by which it may be operated by students, providing steam for all steam experiments and tests.

Steam Equipment. Conveniently located adjacent to the boiler room are a Troy horizontal self-oiling automatic steam engine, a Troy vertical throttling governor steam engine, and a Sturtevant steam turbine, together with brakes and accessories for their complete testing, either as units or as components in a small-scale power plant. Equipment for studying flow and quality of steam, and injector, and an arrangement for the study and testing of steam traps are included in this group.

Air Compression. An electrically driven $12 \times 10$ Ingersoll-Rand air compressor has been arranged with accessories and instruments for testing it, and, in addition, provides means for studying the flow of highpressure air through pipes, valves, and fittings.

Internal Combustion Equipment. Automobile and Diesel engines connected to electric and hydraulic dynamometers and generators are part of this laboratory. Appropriate instruments are provided for the determination of capacity, mechanical and thermal efficiency and heat balance in each case.

Hydraulic Apparatus. A Cameron centrifugal pump driven by a variable speed motor provides for a very complete determination of capacity and efficiency tests, as well as being a controllable source of water for tests covering hydraulics as applied to mechanical engineering.

Instrument Room. An instrument room is provided for the storing and maintenance of instruments used in the laboratories. These instruments include: steam engine and internal combustion engine indicators and reducing motions, tachometers and speed counters, planimeters, pressure gauges and calibrating equipment, thermometers of all types, scales, and small tools.

Lubricants and Fuels Testing Laboratory. There are complete facilities for proximate analyses and calorific determination of solid, liquid, and gaseous fuels, as well as for all the standard tests of lubricants.

Additional equipment provides adequately for boiler feedwater analysis, study of the flow of water through pipes and fittings, blower testing, and flow of air through ducts, and a number of tests in the field of air conditioning.

## Material Processing Laboratory

Machine Tools. Two engine lathes, a universal milling machine, a shaper with slotting attachment, a drill press, a power grinder, and a power hack saw compose the metal-working tools. Such auxiliary attachments as are needed for general purpose machines are provided for the above machine tools. Woodworking machines including a lathe, band saw, circular saw and planer, and a disc sander are available for pattern and wind tunnel model construction.

Welding Equipmont. A 200-ampere electric arc welding machine and complete oxy-acetylene welding and cutting equipment are provided for demonstration of these methods of construction and fabrication.

Casting Equipment. A gas-fired melting furnace and sufficient molding equipment are available for the production of small castings on a demonstration basis.

Metallographic and Hcat Trcating Equipment. Polishing equipment and a microscope are available for the preparation and examination of metal specimens. Heat treatments may be carried out with the use of a gas-fired heat-treating furnace.

## Aeronautics Laboratory

Wind Tunnel. The wind tunnel is of the closed throat type with a $24^{\prime \prime}$ circular working section. The air speed through the working section is $140 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. A standard suspension system is employed for the models, permitting computation of lift, drag, and pitching moment.

Engine Test Ccll. The engine test cell has been developed around a four-cylinder opposed type air-cooled engine. The engine is fitted with a club propeller and cradle mounted for torque measurements. Complete tests can be made for heat balance, engine cooling, and altitude effect.

Engine Bay. To meet CPT requirements for the secondary flight training program, a group of representative engines has been collected. These include both liquid- and air-cooled types. Assembly and disassembly of these engines by the students in the CPT course permits the engineering students to make close examination of the important engineering features of the engines.

Structural and General Exhibits. For joint use of the engineering students and the CPT students a collection of typical aircraft structures and instruments has been made. This collection includes airplane fuselages, wing panels, tail assemblies, propellers, and flight and engine instruments.

## GENERAL FACILITIES OF THE COLLEGE OF ENGINEERING

The Engineering Library, housed in Asbury Building, provides a total of approximately 8,500 volumes in the field of engineering and its allied subjects. A collection of approximately 1,600 engineering periodicals is constantly expanding through the receipt of current issues. Engineering students also have full access to the General University Library, the Woman's College Library, and the various specialized departmental libraries.

The Drafting Rooms. Three separate well-lighted drafting rooms facilitate work in the various courses in which graphic methods are taught and employed. Additional facilities include a standard machine for producing both blue-prints and white-prints.

The Photographic Dark Room provides complete facilities for processing a wide variety of photographic material used to supplement course instruction.

## ADMISSION TO COLLEGE

## GENERAL REGULATIONS

Admission to the College of Engineering of Duke University is on a selective basis, dependent upon the ability, attainments, and character of the applicant. No student is admitted until the Council on Admissions has received for him a scholastic record from school or college, a certificate of vaccination and of good health, and satisfactory evidence of good character and ability. Prospective students and relatives are invited to visit the University and the College o'f Engineering in particular. This would be advantageous to the applicant since it would enable him to acquaint himself with the facilities of the University, and to discuss possible courses of study.

Certain days are announced in the University Calendar each year for the registration, classification, and sectioning of students. Those students who are admitted later than the dates amounced must pay to the Treasurer $\$ 5.00$ additional for the privilege of matriculating.

All correspondence relating to admission of men should be addressed to the Secretary of Duke University, Duke Station, Durham, N. C.

## ADMISSION TO THE COLLEGE OF ENGINEERING

An applicant for admission to the Freshman Class in engineering must have completed at least fifteen units of preparatory work, partly in required and partly in elective subjects. A unit represents a year of work in a subject in an accredited secondary school, provided the work done in that subject is approximately one fourth of the annual amount of work regularly required in the school.

The subjects in which this credit may be offered and the maximum amount of credit acceptable in each subject are given in the following table:


For a detailed explanation of the units in the table above, see the definitions as set forth by the Southern Association of Colleges and Secondary Schools and other regional associations.

## ADMISSION BY CERTIFICATE

Applicants able to submit certificates of proficiency from accredited schools in subjects accepted for admission to the Freshman Class will be admitted without examination. These certificates must be properly made out on the regular blanks furnished by the University, signed by the principal of the school from which the applicant comes, and presented before or at the opening of the academic year. The applicant must have completed the course of the school from which he comes.

At least nine and one half of the fifteen units required for admission must come from the following:

## Requircd Units

| English | 3 units |
| :---: | :---: |
| A Foreign Language | . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 units |
| *Science | . 1 unit |
| History | . 1 unit |
| $\dagger$ Algebra | $11 / 2$ or 2 units |
| Plane Geometry | ... 1 unit |

## Elective Units

In addition to the above required units, sufficient elective units must be offered to make a total of fifteen. It is recommended that these electives be chosen from the following list:

| Algebra | 1/2 unit |
| :---: | :---: |
| Solid Geometry | 1/2 unit |
| Trigonometry | 1/2 unit |
| $\ddagger$ German or French or Latin or Spanish or | 1 to 4 unit |
| History or Civics (not the required unit) | 1 to 3 unit |
| Physics or Chemistry or Biology (not the required unit) | 1 to 3 un |

## ADMISSION BY EXAMINATION

Students who present fifteen units for admission from schools not accredited by the University, and students who present the proper units but whose grades are not acceptable, are required to validate their units by entrance examinations in English and in mathematics, and such other rests as the University may prescribe, including the test required by the North Carolina College Conference.

Students who have not the required units in English or in mathematics but who are otherwise acceptable must, before admission, clear this deficiency by entrance examinations.

## ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing from other approved institutions under the following conditions: all applicants must have ful-

[^19]filled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions, and have honorable dismissal from the institutions they previously attended.

Applicants for advanced standing should present, so far as possible, subjects corresponding to those required at Duke University. Students admitted to advanced standing may not during their first semester elect more than the minimum number of hours required of the class which they enter except by permsision of the Dean. Further, in addition to other requirements, a minimum of one full year in residence at Duke University with the satisfactory completion of at least thirty semester hours of work approved for Seniors, with an average grade of "C," is required of all candidates for the Bachelor's degree.

Students who have transferred from other colleges must, in order to make their provisional classification final, pass during their first year of residence not less than the equivalent of four year courses with an average grade of "C" or higher.

The date for the registration and classification of students with advanced standing from other institutions is announced in the University Calendar. Students who are admitted later than this date are required to pay to the Treasurer $\$ 5.00$ additional for the privilege of matriculating.

## FRESHMAN WEEK

The week immediately preceding the opening of College is set aside for the induction of Freshmen. During this period health examinations, psychological tests, and placement tests are given in English and mathematics. Sectioning in these two subjects are based on the grade made on the placement tests. The Freshmen are divided into groups for instruction in the use of the Library, in the regulations of the student body, and in all matters pertaining to the adjustment of the individual to a new environment. Attendance upon these exercises is required of all Freshmen.

## SPECIAL STUDENTS

Students of mature age not fully prepared to enter the Freshman Class may be admitted as special students and allowed to enroll for such work as they are prepared to carry. Further, they are required to take fifteen hours of classwork a week.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

## GENERAL STATEMENT

The studies for the degree of Bachelor of Science in Civil, Electrical, or Mechanical Engineering are designed for students who are preparing for civil, electrical, and mechanical or aeronautical engineering as a profession, and lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E. All curricula of the College of Engineering are fully accredited by the Engineers' Council for Professional Development, recognized accrediting agency in the field of engineering education.

Each of these degrees requires one hundred and thirty-eight semester hours of work of which one hundred and twenty must be completed with an average grade of "C." If a foreign language is elected, it must be taken two years unless a student has sufficient entrance credits to enable lim to pursue a more advanced course.

Prospective students should note that immediately after the final examination in May or June a three weeks' course in surveying is given under the direction of the Summer Session. This course is required of all civil engineering students at the end of their Freshman year and is required of all other engineering students before graduation.

## GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

GROUP I

## Civil Engineering <br> Freshman Year

FIRST SEMESTER SECOND SEMESTER

Sophomore Year
Mathematics 59 4 Mathematics 60 ..... 4
Physics 57 3 Physics 58 ..... 3
Economics 51 3 Economics 52 ..... 3
Statics G. E. 57 3 Kinetics G. E. 58 ..... 3
Surveying 61 2 Steam Engineering M. E. 55 ..... 2
Route Surveying 63 Route Surveying 64 ..... 2
Physical Education Physical Education
$\overline{17}$
17
Junior Year
Strength of Materials 107 3 Hydraulics 128 ..... 3
Structures 131 4 Structures 132 ..... 4
Highways 115 3 Materials 118 ..... 3
Electrical Engineering 153 3 Electrical Engineering 154 ..... 3
Elective 3 Elective ..... 3
16 ..... 16
Senior Year
Sanitary Engg. 123 4 Sanitary Engg. 124 ..... 3
Concrete 133 3 Concrete 134 ..... 3
Railroads 119 3 Astronomy-Navigation 112 ..... 3
Heat Power M. E. 103 3 Heat Power M. E. 104 ..... 3
M. E. Lab. 115 1 M. E. Lab. 116 ..... 1
Elective 3 C. E. Project 143 ..... 3
Elective ..... 2
17 ..... 18
GROUP II
Electrical Engineering
Freshman Year
FIRST SEMESTER SECOND SEMESTER
S.H.
Mathematics 9 Mathematics 10 ..... 5
Chemistry 1 4 Chemistry 2 ..... 4
English 1 3 English 2 ..... 3
Physics 17 3 Physics 18 ..... 3
Drawing 1 2 Drawing 2 ..... 2
Physical Education Physical Education
17 ..... 17
Three weeks of Surveying S60 in summer. Credit, 3 semester hours.
Sophomore Year
Mathematics 59 4 Mathematics 60 ..... 4
Physics 57 3 Physics 58 ..... 3
Statics 57 3 Kinetics-Mechanism 52 ..... 4
Electrical Engineering 51 3 Electrical Engineering 52 ..... 3
Economics 51 ..... 3
Steam Engineering 55 2 Physical Education
Physical Education ..... $\overline{17}$
Junior Year
Theory of D. C. Circuits 151 ..... 4 Theory of A. C. Circuits 152 ..... 3
Hydraulics 128 ..................... 3 Strength of Materials 107-109 ..... 4
Electrical Circuits Lab. 161 ........ 1 Electrical Circuits Lab. 162 ..... 1
Heat Power Engineering 103 ...... 3 Heat Power Engineering 104 ..... 3
Mathematics 131 3 Electrical Measurements 104 ..... 3
Mechanical Engineering Mechanical Engineering Laboratory 115 1 Laboratory 116 ..... 1
15 ..... 15
Senior Year
A. C. Machinery $257 \ldots \ldots .$. ..... 3 A. C. Machinery 258 ..... 3
Electric Power Trans. $159 \ldots . . . .3$ Electric Power Stations 158 ..... 2
Communication 261 3 Communication 262 ..... 4
D. C. Machinery 155 ..... 1
Electrical Machinery Laboratory 163
Electrical Machinery Laboratory 164 ..... 1
Seminar 165 Electives ..... 6
Electives ..... 17
19
GROUP III
Mechanical EngineeringFreshman Year
FIRST SEMESTER
SECOND SEMESTER
S.H. ..... s.H.
Mathematics 9 Mathematics 10 ..... 5
Chemistry 1 4 Chemistry 2 ..... 4
English 1 3 English 2 ..... 3
Physics 17 3 Physics 18 ..... 3
Drawing 1 2 Drawing 2 ..... 2
Physical Education Physical Education1717
Three weeks of Surveying S60 in summer. Credit, 3 semester hours.
Sophomore Year
Mathematics 59 4 Mathematics 60 ..... 4
Physics 57 3 Physics 58 ..... 3
Statics G. E. 57 3 Kinetics-Mechanism 54 ..... 5
Const. Processes 51 3 Steam Engineering 55 ..... 2
Economics 51 3 Economics 52 ..... 3
Physical Education Physical Education
16 ..... 17
Junior Year
Fluid Mechanics 105 3 Machine Design 150 ..... 3
Str. of Materials 107-109 4 Aeronautics 108 ..... 3
Electrical Engg. 153 3 Electrical Engg. 154 ..... 3
Thermodynamics 101 3 Thermodynamics 102 ..... 3
M. E. Lab. 113 1 M. E. Lab. 114 ..... 2
Elective 3 Elective ..... 3
17 ..... 17

## Senior Year

Mechanical Option Machine Design 151 3 Industrial Engg. 158 ..... 3
Int. Comb. Eng. 155 Power Plants 162 ..... 3
Heating and Air Cond. 153 3 Refrigeration 154 ..... 3
M. E. Lab. 159 2 M. E. Lab. 160 ..... 2
Seminar 199 1 Seminar 200 ..... 1
Electives 5 Electives ..... 5
17 ..... 17
Aeronautics Option
Machine Design 151 ..... 3 Industrial Engg. 158 ................ 3
Int. Comb. Eng. 155 3 Airplane Design 172 ..... 3
Airplane Design 171 3 Airplane Engines 156 ..... 3
Aerodynamics 173 2 Aerodynamics 174 ..... 2
M. E. Lab. 159 2 Aeronautics Lab. 176 ..... 2
Seminar 199 1 Seminar 200 ..... 1
Elective ..... 3
Elective-
17 ..... 17

Note: The Aeronautics Option for Senior Mechanical Engineering students will not be offered while the Navy College Training Program is in operation.

## NAVY V-12 COURSES

Navy V-12 courses may be substituted for College of Engineering courses as indicated below:

COLLEGE OF ENGINEERING
G.E. 1-2. Engineering Drawing.
G.E. 57. Statics.
G.E. 58. Kinetics.
G.E. 107. Strength of Materials.
G.E. 109. Strength of Materials Lab.
G.E. 128. Hydraulics.
C.E. S60. Plane Surveying.
C.E. 63-64. Route Surveying.
C.E. 112. Practical Astronomy and Navigation.
C.E. 115. Highway Engineering.
C.E. 118. Materials of Engineering.
C.E. 123-124. Sanitary Engineering.
(b) Public Water Supply.
(c) Sewerage.
C.E. 131. Steel Structures-Stresses.
C.E. 132. Steel Structures-Design.
C.E. 133. Reinforced Concrete.
C.E. 134. Advanced Reinforced Concrete.
C.E. 135. Soils and Foundations.

N V-12
N D1. Engineering Drawing.
N D2. Descriptive Geometry.
N A1. Analytical Mechanics-Statics.
N A2. Analytical Mechanics-Dynamics.
N CE3. Strength of Materials.
N CE4a. Strength of Materials Lab.
N CE6. Fluid Mechanics.
N CE1. Plane Surveying.
N CE10. Curves and Earthwork.
N Math. M8. Elementary Navigation and Nautical Astronomy.

N CE17. Highway Engineering.
N CE4. Strength of Materials Lab. I.
N CE14. Water Supply.
N CE13. Sanitary Engineering.
N CE7. Structures I.-Structural Analysis.
N CE9.+ Structures III.-Elementary Structural Design in Steel and Wood.
N CE8. Structures II.-Theory of Reinforced Concrete.
N CE11.- Structures IV.-Concrete Structures and Foundations.

N CE15. Soil Mechanics.
E.E. 51-52. Survey of Electrical Enginering.
E.E. 151. Theory of Direct Current Circuits.
E.E. 152. Theory of Alternating Current Circuits.
E.E. 153-154. Principles of Electrical Engineering.
E.E. 155. Direct Current Machinery.
E.E. 161-162. Electrical Circuits Lab.
E.E. 163-164. Electrical Machinery Lab.
E.E. 202. Fundamentals of Radio.
E.E. 257-258. Alternating Current Machinery.
E.E. 261. Communication Engineering, Audio Frequency.
E.E. 262. Communication Engineering, Radio Frequency.
M.E. 51. Constructive Processes.
M.E. 52. Kinetics-Mechanism.
M.E. 54. Kinetics-Mechansim.
M.E. 55 Steam Engineering.
M.E. 101-102. Engineering Thermodynamics.
M.E. 103-104. Heat Power Engineering.
M.E. 105. Fluid Mechanics.
M.E. 108. Aeronautics.
M.E. 113-114. Junior Mechanical Engineering Laboratory.
M.E. 115-116. Junior Mechanical

Enginering Laboratory.
M.E. 150-151. Machine Design.
M.E. 154. Refrigeration Engineering.
M.E. 155. Internal Combustion Engines.
M.E. 158. Industrial Engineering.

N EE1. Electricity and Magnetism.
N EE3. Electric and Magnetic Circuits I.

N EE4. Electric and Magnetic Circuits II.

N EE10, 11. Electrical Engineering I-
Direct-Current Apparatus and Circuits.

Electrical Engineering II-Alternating-Current Apparatus and Circuits.
N EE12a. Direct-Current Machinery and Storage Batteries.

N EE3-4. Electric and Magnetic Circuits I and II.

N EE15. Electrical Engineering Lab.
NEE(5a-6a). Electron Tubes and Circuits Ia and IIa.
N EE13a. Alternating-Current Machinery Ia.
N EE7. High-Frequency Circuits I.
N EE8. High-Frequency Circuits II.
N ME. Mechanical Processes.
N A1. Analytical Mechanics IStatics.
N ME1. Kinematics.
N A1. Analytical Mechanics IStatics.
N ME1. Kinematics.
N ME2. Elementary Heat Power.
N ME4. Thermodynamics I.
N ME4a. Thermodynamics Ia.
N ME3a. Heat Power Ia.
N CE6. Fluid Mechanics.
N ME14. Aerodynamics.
N CE6. Fluid Mechanics.
N ME3a. Heat Power Ia.
N ME15, 16. Mechanical Design I, II.

N ME13. Refrigeration.
N ME11. Heat Power II-InternalCombustion Engines.

N GE3. Industrial Organization.
M.E. 159. Senior Mechanical Engineering Laboratory.
M.E. 160. Senior Mechanical Engineering Laboratory.
M.E. 162. Power Plant Calculations.

N ME10. Naval Machinery.
N ME11. Heat Power II-InternalCombustion Engines.

N ME12. Heat Power III-Steam Power.
N ME10. Naval Machinery.

## COURSES OF INSTRUCTION

## COLLEGE OF ENGINEERING

Note: Courses primarily for Freshmen and Sophomores are numbercd from 1 to 99; those primarily for Juniors and Seniors from 100 to 199; those primarily for Scniors and graduates from 200 to 299. The amount of credit for each course is given in scmester hours following the description of the course.

The designation (w) or ( E ) indicates that the course is to be given on the IV'cst Campus or on the East Campus. The designation (w \& E) indicates that the coursc revill be given on cach campus.

Odd-numbercd courses are offercd in the fall scmester and cven-numbered courscs are offered in the spring semester. Double mumbers indicate that the course is a year course and must be continued throughout the year if credit is reccived.

## GENERAL ENGINEERING

1-2. Engineering Drawing.-The study of mechanical drawing with emphasis on drawing parts, elementary machines, dimensioning, and working drawings; pencil and ink technique; elementary drawing board geometry, including point line and plane relations, and elementary work in developments and intersections. 4 s.h. (E)

Staff
5. Descriptive Geometry.-The study of drawing board problems involving point, line, and plane relationships ; development of solids; intersections of solids and concurrent noncoplanar forces, with emphasis on practical applications. 2 s.h. (E)

Staff
51-52. Technical Drawing.-For liberal arts students. Elementary principles of machine, structural, and topographic drawing. Nine laboratory hours. 6 s.h. (E)

Assistant Professor L. Hall
[Not offered in 1946-47]
57. Statics.-Concurrent forces, parallel forces, nonconcurrent and nonparallel forces, centroids, friction, moment of inertia. Prerequisites: course G. E. 1-2, Mathematics 9 and 10. 3 s.h. (E)

Staff
58. Kinetics.-Translation, rotation, work, energy, and momentum. Prerequisites: course G. E. 57 and Mathematics 59. 3 s.h. (e) Staff
107. Strength of Materials.-Elastic bodies under stress; flexture of simple overhanging, fixed, and continuous beams; columns; combined stresses, etc. For Civil Engineering students the laboratory work is included in course 118. Other students should take course G. E. 109 for laboratory. Prerequisite: course G. E. 57. 3 s.h. (E) Staff
109. Strength of Materials Laboratory.-Concurrent with course G. E. 107. 1 s.h. (E) Either semester.

Staff
128. Hydraulics.-Hydrostatics; flow of water through orifices, weirs, pipes, and open channels; general principles of water wheels and turbines. Prerequisite: course G. E. 57. 3 s.h. (e) Either semester.

Staff
151-152. Elements of Cartography.-For liberal arts students.
Development and uses of maps and charts; scales, symbols, contours, and profiles; construction of projections; field and office computations, and control plotting; sources for compilation, and the applications of aerial photography; preliminary and final drafting, and reproduction. One-hour class and six laboratory hours. 6 s.h. (E)

Assistant Professor L. Hall.
[Not offered in 1946-47]

## CIVIL ENGINEERING

PROFESSORS BIRD AND HALL; ASSISTANT PROFESSOR WILLIAMS; MR. PALMER
S60. Plane Surveying.-Use of instruments; transit, stadia, compass, and plane table surveying; simple triangulation; determination of meridian by observation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, and departures; areas by planimeter; methods of plotting, survey and plot of sections of the campus by stadia, and transit and tape. Eight hours a day, three weeks, Summer Session. Prerequisites: course G. E. 1 and trigonometry. 3 s.h. (E)

Staff
61. Higher Surveying.-Care and adjustment of instruments; topographical surveying; surveys and resurveys; laying out and division of land; public land system; further calculations, omitted measurements, areas by double longitude; quantities from profiles and cross sections. Prerequisite: course S60. 2 or 3 s.h. (E)

Assistant Professor Williams
63-64. Route Surveying.-Thorough drill in the calculation and laying out of simple, compound, and easement curves, widening of curves, vertical curves, setting slope stakes, ordinary earthwork computations, and mass diagrams. Prerequisite : course S 60.4 s.h. (E)

Staff
70. Civil Engineering Drawing.-Elements of topographical and structural drafting. Two three-hour drawing periods. Prerequisite: course G. E. 1-2. 2 s.h. (E)

Mr. Palmer
112. Practical Astronomy and Navigation.-Determination of time, longitude, latitude, and azimuth. Pilotage, dead reckoning, celestial navigation. Observations and calculations. Prerequisite: S60 or with the consent of the instructor. 3 s.h. (E)

Professor Bird
115. Highway Engineering.-Location, construction, and maintenance of roads and pavements; dust prevention; road economics. 3 s.h. (E)

Professor Bird
118. Materials of Engineering.-Study and testing of materials commonly used in engineering. Prerequisite: course G. E. 107 or concurrent. 3 s.h. (E) Assistant Professor Williams
119. Railroad Engineering.-Differences between highway and railway practice affecting curves and earthwork. Frogs, switches, and crossings. Preliminary and location survey of a railway of sufficient length to secure familiarity with methods of actual practice. Paper location with estimate of cost. Prerequisite: course 63-64. 3 s.h. (E)

Professor Bird
120. Railroad Engineering.-Construction and maintenance of track and trackwork, economics, and operating conditions affecting location. Prerequisite: course 63-64. 2 s.h. (E)

Professor Bird

## 123-124. Sanitary Engineering.-

(a) Hydrology.-Factors affecting precipitation; evaporation from land and water surfaces; relation of precipitation to run-off; estimating run-off; floods and flood flows. Stream gauging.
(b) Public Water Supply.-Quantity and quality of water required, hydraulics of wells, reservoirs, works for purification and distribution of water. Standard laboratory tests for chemical and bacteriological examination of water.
(c) Sewerage.-Sewerage systems, rainfall and storm water flow, sizes of storm and sanitary sewers, sewage disposal. Standard laboratory tests of sewage. Prerequisite: course G. E. 128. 7 s.h. (e)

Professor Hall
131. Steel Structures-Stresses.-Roofs, parallel chord bridges under all types of loads, inclined top chord bridges, including subdivided panels, wind bracing. Prerequisite: course G. E. 57. 4 s.h. (E)

Professor Bird
132. Steel Structures.-Design.-Built beams, plate girders, tension members, compression members, tension and compression members, end posts, stringers, floor beams, pins, plates, etc. Drafting. Prerequisites: courses G. E. 107 and 131. 4 s.h. (E)

Professor Bird
133. Reinforced Concrete.-Theory and design of reinforced concrete beams, slabs, columns. Prerequisite: course G. E. 107. 3 s.h. (E)

Professor Bird
134. Advanced Reinforced Concrete.-Retaining walls, foundations, buildings, rigid frames. Prerequisites: courses 133 and 135. 3 s.h. (E)

Professor Bird
135. Soils and Foundations.-Fundamental relations and soil classification. Atterberg limits, capillary phenomena and permeability of soils, soil stabilization. Different behavior of granular and plastic soils affecting the foundations of structures, earth pressure against retaining walls. Prerequisite: course G. E. 107. 3 s.h. (E)

Professor Bird
137-138. Seminar.-Students are required to make reports and to talk on current engineering literature or on such other topics as may be assigned. 2 s.h. (E)

Staff
143-144. Projects in Civil Engineering.-This course may be assigned by the Chairman of the Department to certain Seniors who have shown an aptitude for research in one distinct field of civil engineering, in which case it may be substituted for certain general civil engineering courses. 3-6 s.h. (E) Either semester.

Staff
240. Indeterminate Structures.-Introductory course dealing with the application of theory of least work, deflection, and rotation to indeterminate stresses. Problems are solved analytically, graphically, and by deformeter. Prerequisites: course 131 and ability to read French or German. 3 s.h. (E)

Professor Bird

## ELECTRICAL ENGINEERING

## PROFESSOR SEELEY; ASSOCLATE PROFESSOR MEIER; ASSISTANT PROFESSORS MACKICHAN AND VAIL; MESSRS. EGERTON AND KRAYBILL

51-52. Survey of Electrical Engineering.-A general survey course covering the entire field of electrical engineering, intended to give the electrical engineering student a general preview of the subject as a whole. Required of Sophomores. Prerequisites: Freshman mathematics and concurrent physics. 6 s.h. (E) Associate Professor Meier
104. Electrical Measurements.-Direct-current and low-frequency measurement; theory, calibration, and use of laboratory standards, and of potentiometers, power and energy measuring equipment, instrument transformers. Audio-frequency measurements of impedance, current and voltage. Two-hour class, three-hour laboratory. Prerequisites: courses 151, 161. E.E. 152, 162 concurrently. 3 s.h. (E)

Professor Seeley
151. Theory of Direct Current Circuits.-A course consisting of lectures and recitations covering the fundamental theory of direct current circuits, and electric and magnetic fields. Prerequisites : course 51-52, Physics 57-58, Mathematics 59,60 . Mathematics 131 should be taken concurrently. 4 s.h. (E)

Assistant Professors MacKichan and Vail
152. Theory of Alternating Current Circuits.-A course covering the algebra of vectors and complex quantities, nonsinusoidal waves, polyphase circuits, harmonics, and unbalanced three-phase circuits. Two-hour class, twohour computation. Prerequisites : course 151, Mathematics 131. 3 s.h. (E)

Assistant Professors MacKichan and Vail,

153-154. Principles of Electrical Engineering.-An elementary course consisting of lectures, recitations, and laboratory covering the principles of direct and alternating current circuits, machinery, and their application, designed especially for students in civil and mechanical engineering. This course includes one three-hour period in the electrical machinery laboratory per week. Prerequisite: Physics $57-58.6$ s.h. (e)

Assistant Professor Vail and Mr. Kraybill
155. Direct Current Machinery.-A study of the principles which underlie the design and operation of all types of direct current machinery. Prerequisites : courses 151, 161-162. 2 s.h. (E)

Associate Professor Meier
156. Electric Transportation.-Construction, operation, and uses of electric equipment in air, land, and sea transportation. Elective. Prerequisites: courses 151, 152, 161-162, or 153-154. 3 s.h. (E)

Mr. Kraybill
157. Industrial Applications of Electrical Equipment.-A course of lectures, demonstrations, and recitations dealing with the basic principles of the utilization of a wide variety of electrical equipment in industrial practice. Industrial control and motor applications with a short review of motor performance. Electronic equipment and applications. Elective. Prerequisite: course 153-154. 3 s.h. (e) Associate Professor Meier
158. Electric Power Stations.-A course of lectures and recitations pertaining to the design, construction, and operation of electric power stations, both steam and hydraulic. Consideration of prime movers; generating machinery; switchboards; instruments, relays, and protective devices; operation and management; visit to neighboring plants. Prerequisites: courses 151, 152, and M. E. 103-104. 2 s.h. (E)

Assistant Professor Vail
159. Electric Power Transmission.-A course of lectures and recitations on the factors involved in the transmission of electrical energy over long distances and the use of hyperbolic functions in the solution of transmission line problems. Two-hour class, two-hour computation. Prerequisites: courses 151, 152. 3 s.h. (E)

Professor Seeley
161-162. Electrical Circuits Laboratory.-This course provides experimental verification of the theory developed in courses 151 and 152, and should be taken concurrently. Three hours per week. 2 s.h. (E)

Assistant Professor Vail
163-164. Electrical Machinery Laboratory.-A study of the technique of testing electrical machines and a thorough analysis of their performance. Concurrent with courses 155, 258. 2 s.h. (e) Associate Professor Meier

165-166. Electrical Engineering Seminar.-Seniors are required to present reports and dissertations on material appearing in current engineering literature. Juniors may participate, but without credit. 2 s.h. (E)

Assistant Professor Vail and Staff
169. Electron Tubes and Circuits.-Electronic emission, static and dynamic characteristics and rectification, glow discharge tubes, amplifiers and oscillators, typical circuits. Two-hour class, three-hour laboratory. Prerequisites: courses 152, 162. 3 s.h. (E)

Professor Seeley
173-174. Projects in Electrical Engineering.-Project work may be undertaken only by those who show special aptitude, or who have had previous experience on some problem. The consent of the Chairman of the Department must be obtained before registering. Seniors only. Elective credit. 3-6 s.h. (E) Professor Seeley and Staff
202. Fundamentals of Radio.-An elementary course covering the principles underlying radio communication, including vacuum tubes, vacuum-tube circuits, oscillating circuits, antennae, radiation, transmission, and reception. Designed especially for civil and mechanical engineering students. Prerequisite: course 153-154. 3 s.h. (E)

Mr. Kraybill

257-258. Alternating Current Machinery.-A course covering the theory underlying the design, construction, and operation of synchronous generators, transformers, polyphase induction and synchronous motors, single-phase motors of all types, converters and rectifiers. Prerequisites: courses 152, 155. 6 s.h. (E)

Associate Professor Meier
261. Communication Engineering, Audio Frequency.-An advanced course on the principles underlying voice-frequency communication covering nature of speech and sound, wave propagation over metallic circuits, filters; resistance, inductance, capacitance at audio frequencies; transmission characteristics of communication equipment. Two-hour class, three-hour laboratory. Prerequisites: courses 151, 152, and Mathematics 131. 3 s.h. (E)

Professor Seeley and Mr. Kraybill'
262. Communication Engineering, Radio Frequency.-An advanced course on the principles underlying radio communication, covering vacuum tubes, vacuum-tube circuits, oscillating and coupled circuits ; antennae, radiation, transmission, reception, and ultra-high frequency techniques. Three-hour class, three-hour laboratory. Prerequisite: course 261. 4 s.h. (E)

Professor Seeley and Mr. Kraybili
263-264. Mathematical Analysis of Electrical Circuits.-An advanced course on the detailed mathematical analysis of certain circuits used in electrical engineering, with an introduction to the use of operational calculus as applied to electrical circuits. Elective. Prerequisites: courses 151, 152, and Mathematics 131. 6 s.h. (E)

Professor Seeley

## MECHANICAL ENGINEERING

PROFESSOR WILBUR; ASSOCIATE PROFESSOR REED; ASSISTANT PROFESSORS HINTON, LEWIS, AND THEISS; MESSRS. KENYON AND NEALE
51. Constructive Processes.-Recitation course covering fundamentals of metallurgy and general processes of casting, forging, and machining. Demonstrations of basic machining operations are made. Prerequisite: Chemistry 2. 3 s.h. (E)

Assistant Professor Theiss
52. Kinetics-Mechanism.-For E. E. Students.-Motions of particles. Applications of Newton's Laws of Motion to motions of rigid bodies, principles of work and energy. Linkages, cams, gears, trains of mechanism. Three recitations, three laboratory hours. Prerequisites: G. E. 2, G. E. 57, Mathematics 59. Mathematics 60 concurrently. 4 s.h. (e)

Associate Professor Reed and Assistant Professor Lewis
54. Kinetics-Mechanism.-For M. E. Students.-Motions of particles. Applications of Newton's Laws of Motion to motions of rigid bodies; principles of work, energy, impulse and momentum. Linkages, belts, ropes, chains, cams, gears, trains of mechanism. Three recitation hours, six laboratory hours. Prerequisites: G. E. 2, G. E. 57, Mathematics 59. Mathematics 60 concurrently. 5 s.h. (E)

Associate Professor Reed
55. Steam Engineering.-Elementary principles of boilers, engines, turbines, and auxiliaries; properties of steam; fuels and combustion. Prerequisite: Physics 18. 2 s.h. (E)

Professor Wilbur and Mr. Neale
101-102. Engineering Thermodynamics.-A study of thermodynamic properties and processes of gases, vapor and gas-vapor mixtures; cycles; efficiencies and performance of steam power plant equipment. Three recitations. Prerequisites: M. E. 55, Physics 58, and Mathematics 60.6 s.h. (e)

Professor Wilbur and Assistant Professor Hinton
103-104. Heat Power Engineering.-A short course in engineering thermodynamics combined with applications to power plant design. For civil and electrical engineering students. Prerequisites: Mathematics 60, M. E. 55. 6 s.h. (E)
105. Fluid Mechanics.-Fluid statics; kinematics of fluid flow; application of fluid dynamics theory to flow through orifices, weirs, and pipes; general principles of centrifugal pumps and turbines. Prerequisite: M. E. 54. 3 s.h. (E) Professor Wilbur and Assistant Professor Hinton
108. Aeronautics.-A general course applying fluid mechanics principles to airfoils, propellers, and the complete airplane. Prerequisite: M. E. 105. 3 s.h. (E)

Assistant Professor Theiss
M. E. 113-114. Junior Mechanical Engineering Laboratory.-Open only to M. E. students. First semester, three laboratory hours, devoted to laboratory studies and reports on instruments for mechanical engineering testing; experiinents in fluid mechanics. Second semester, six laboratory hours; experiments and reports in thermodynamics, boiler inspection, air compression, injectors, steam and fuel calorimetry, flue gas analysis. Prerequisite: M. E. 55. M. E. 101-102 concurrently. 3 s.h. (E)

Assistant Professors Hinton and Theiss; Mr. Kenyon
115-116. Junior Mechanical Engineering Laboratory.-For C. E. and E. E. students who are taking M. E. 103-104. Experiments and reports on measuring instruments and apparatus, flow of air, steam and water, economy of boilers, steam and internal combustion engines. Three laboratory hours. 2 s.h. (E)

Assistant Professor Hinton and Mr. Pattison
150-151. Machine Design.-Application of principles of Strength of Materials, Constructive Processes, and Engineering Drawing to design of riveted and welded connections, pressure vessels, and machine elements, followed by design of at least one complete machine. Two recitations, three laboratory hours. Prerequisites: G. E. 107, M. E. 51, M. E. 54.6 s.h. (e)

Associate Professor Reed and Assistant Professor Lewis
153. Heating and Air Conditioning.-Fundamentals of heating and air conditioning, determination of heat losses and gains, design of steam, hot water and warm air heating and air conditioning systems for homes, offices, and industrial buildings. Prerequisites: M. E. 102 or M. E. 104. M. E. 159 concurrently. 3 s.h. (E)

Associate Professor Reed
154. Refrigeration Engineering.-Fundamentals of refrigeration theory and design, with applications in industry. Prerequisites: M. E. 102 or M. E. 104. M. E. 160 concurrently. 3 s.h. (e) Associate Professor Reed
155. Internal Combustion Engines.-Principal cycles; fuels and fuel mixtures; effect of real mixtures on theoretical cycles; combustion; carburetion and fuel injection. Thermodynamic analysis of engine performance. Modern developments in the internal combustion engine. Three recitations. Prerequisite: M. E. 101-102. 3 s.h. (e) Assistant Professor Hinton
156. Airplane Engines.-A study of the qualities desirable in an airplane engine and design calculations. These calculations include such items as indicator card, inertia and gas loads, crankshaft vibration, and fin area required for proper cooling. Three recitations. Prerequisite: M. E. 155. 3 s.h. (E)
158. Industrial Engineering.-A study of the industrial growth and present tendencies of productive industries as concerns the engineer. Specific topics treated are: plant location; organization; production and cost controls, wagepayment, etc. Seniors only. Three recitations. 3 s.h. (E)

Assistant Professor Theiss
159. Senior Mechanical Engineering Laboratory.-Tests and reports on performance and economy of internal combustion engines, steam engines and turbines; heat transfer, radiator tests, and heat balances. Required of all Seniors in mechanical engineering. Six laboratory hours. Prerequisite: M. E. 114. 2 s.h. (E)

Assistant Professors Hinton and Theiss
160. Senior Mechanical Engineering Laboratory.-Required of all Mechanical Option Seniors. Tests and reports on boiler, engine, turbine, condenser and accessories; heat transfer; refrigeration equipment. Six laboratory .hours. Prerequisite: M. E. 159. M. E. 154, 162 concurrently. 2 s.h. (E) Assistant Professors Hinton and Theiss
162. Power Plant Calculations.-Study of economic and engineering factors in developing steam power plants. Consideration of the performance of boilers, prime movers, condensers and various auxiliaries in various groupings as they affect the plant heat balance. Three recitations. Prerequisites: M. E. 101-102 or 103-104. 3 s.h. (E)

Professor Wilbur
171-172. Airplane Design.-The design of an airplane to accomplish a specific purpose, this design to include three-view drawing, determination of air and inertia loads, and stress analysis as proof of structure. All work must be in a form acceptable to the Civil Aeronautics Board. Three laboratory periods. Prerequisites: M. E. 150, M. E. 108. M. E. 151 concurrently. 6 s.h. (E)

173-174. Aerodynamics.-A review of the physics of air leading into a study of airflow around aerodynamical shapes, this study progressing into an analysis of air forces that terminates in performance estimation. Two recitations. Prerequisites: M. E. 105, M. E. 108. 4 s.h. (E)
176. Aeronautics Laboratory.-This course includes performance tests on airplane engines, installation problems and operational characteristics of aircraft instruments, and tests of aerodynamical shapes in the wind tunnel. Two laboratory periods. M. E. 174 concurrently. 2 s.h. (E)

197-198. Projects in Mechanical Engineering.-This course may be assigned by the Chairman of the Department to certain Seniors who express a desire for such work and who have shown aptitude for research in one distinct field of mechanical engineering. Elective credit either semester. 3-6 s.h. (E)

Professor Wilbur and Staff
199-200. Seminar.-Students are required to make reports and to talk on current engineering literature or on such topics as may be assigned. 2 s.h. (E) Staff

## REQUIRED NONENGINEERING SUBJECTS

1-2. General Inorganic Chemistry.-Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. One lecture, two recitations, and three laboratory hours, throughout the year. 8 s.h. (w)

Staff
51-52. Principles of Economics.-For Sophomores. 6 s.h. (w \& E)
Staff
English L.-Those Freshmen whose scores in the placement tests are too low to justify their admission into English 1 are required to have credit for English L before they may enter English 1. 3 s.h. (E)

Dr. Harwell and Mr. Fitzgerald
1-2. English Composition.-All Freshmen are required to take course 1 and course 2 .

Students who fail in English 1 or 2 must repeat the course in the following semester. Students in courses 1 and 2 who fail to make an average of " $C$ " or better are strongly advised to earn credit for English 53 during their Sophomore year. 6 s.h. (w \& E)

Associate Professor Sanders, Assistant Professor Jordan, Dr. Harwell, and Mr. Fitzgerald
53. English Composition.-A second course in composition for Sophomores. 3 s.h. Repeated in the second semester. (w \& E) Staff

9-10. First-Year Engineering Mathematics.-College algebra, plane trigonometry, introduction to spherical trigonometry, plane analytic geometry, introduction to solid analytic geometry. 10 s.h. (E)

Staff
59-60. Calculus.-Differential and integral calculus. Prerequisite: Mathematics $9-10$ or the equivalent. 8 s.h. (E)

Staff
131. Elementary Differential Equations.-Solution of elementary types; formation and integration of equations arising in applications. Prerequisite: integral calculus. 3 s.h. (E)

Staff
51-52. General Physics.-This course treats the basic principles of general physics in a more quantitative manner than Physics 1-2. It is designed for Sophomores and Juniors and meets in a thorough way the requirements for entrance into the study of engineering and of medicine, and is well suited for the general science student. A limited number of Freshmen who present physics for entrance and who are taking the required mathematics concurrently may be admitted by permission of the instructor. Four lecture-recitations and one three-hour laboratory period each week. Prerequisite: Mathematics 7-8 or equivalent. 10 s.h. (w)

Professor Hatley, Associate Professor
Carpenter and Assistants

## PARTIAL LIST OF RECOMMENDED ELECTIVE SUBJECTS

57-58. (Economics) First-Year Accounting.-Elementary principles of single proprietorship, partnership, and corporation accounting. Supervised laboratory periods will be arranged. 6 s.h. (w)
103. (Economics) Transportation.-Essential features, problems, and competitive positions of rail, highway, water, and air transportation. Special attention is devoted to valuation, rates, and regulation as applied to railway transportation. Collateral reading and the preparation of papers are required. For Juniors and Seniors. 3 s.h. (w) Associate Professor Landon
105. (Economics) Industrial Management.-A study of the organization and management of industry, with emphasis upon the business applications of the principles developed. Problems of interrelations of functions operating in the several fields of management, such as production control, personnel, and the forecasting of business conditions. For Juniors. 3 s.h. (w)

Associate Professor Welfling
115. (Economics). Economic Geography.-This course is not open to students who have reccived credit for Economics $A$. The study of the interrelation of human activities and environmental elements. The discussion embraces location, maps and their interpretation, the major climatic regions, seasonal influences, weather, lands and their uses, soils and minerals, bodies of water, plants, animals, and the work of man as environmental factors. 3 s.h. (E)

Associate Professor Lemert
138. (Economics) Business Statistics.-A semester's course in elementary statistics designed principally for students of economics and business administration. The material is also of interest to those specializing in engineering, forestry, political science, sociology, and other subjects. Very little algebra and no higher mathematics are required. Offered both semesters. 3 s.h.

Assistant Professor Springer
181-182. (Economics) Business Law.-The fundamental principles of law as applied to common business transactions. The topics presented are: contracts, agency, bailments, sales, negotiable instruments, partnerships, corporations, and bankruptcy. 6 s.h. (w)

Assistant Professor Springer
123-124. Shakespeare. -6 s.h. (w)
Assistant Professor Talbert

145-146. English Poetry, 1832-1900.-6 s.h. (w)
Associate Professor Sanders
151. (English) Public Speaking.-A course in the fundamentals of public speaking with emphasis upon the effective presentation of ideas. 3 s.h. (w)

Mr. Badenoch
152. (English) Argumentation.-A course dealing with the principles of argumentation and debating with special emphasis upon brief-making and practice-speaking. Public questions are studied as parallel work. 3 s.h. (w)

Mr. Badenoch
103. (Botany) General Bacteriology.-Laboratory and lectures. 4 s.h. (w) First semester. (e) Second semester. Professor Wolf
51. General Geology.-This course is designed to give a general view of the surface features of the earth, their origin, structure, and materials. Illustrative materials are studied in the laboratory. Excursions are made to neighboring points where the principles of the science are studied in the field. Three one-hour lectures or recitations and one three-hour laboratory. 4 s.h. (w)

Associate Professor Berry
52. General Geology.-This course is designed to give some knowledge of the chief events of the earth's history. Excursions will be made to suitable neighboring localities. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisite: Geology 51. 4 s.h. (w)

Associate Professor Berry
51-52. History of Art.-The survey course for upperclassmen treats each art as a unit, relating it to its background and its companion arts wherever possible, but leaving many of the problems of correlation to the initiative of the student. The development of architecture is considered in course 51, the development of sculpture and painting in course 52. Courses 51 and 52 are both offered each semester. Credit for a single semester will be given only to Seniors electing it during their last semester. The courses are not open to Freshmen or to students who have had course 1-2. 6 s.h. (w \& E)

Miss Averill
219. Electron Tubes and Their Application.-Theory and application of electron tube circuits with special emphasis on their use in scientific research. Two hours of lecture and one three-hour laboratory per week. 3 s.h. (w)

Professor Nielsen

## FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences and in history. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

## GENERAL FEES

Matriculation, per semester.................................................... . . $\$ 25.00$
Tuition, per semester
Room-rent-See the detailed statement that follows.
Athletic Fee, admitting students to all athletic contests held on the
University grounds, per semester............................................. 5.00
Damage Fee, payable annually at the time of first registration........... 2.00
Medical Fee, per semester.......................................................... . . . 5.00
Library Fee, per semester....................................................... 5.00
Commencement Fee, payable annually at the beginning of the second
semester ................................................................... 3.00
Publication Fee:
First semester..................................................................... . . 2.50
Second semester.................................................................. . . . . 3.00
Diploma Fee, payable by candidates for degrees at the beginning of the
second semester, refunded if the diploma is not awarded............ 5.00
Tuition, Registration, Room-rent, Summer Surveying S10.................. 26.00
LABORATORY AND MATERIALS FEES
Botariy 1, 2, 52, 55, 104, 202, 204, 221, 255, and 256..................... $\$ 2.50$
Botany 51, 103, 151, 156, 203, 216, and 252..................................... 5.00
Forest Botany 224 and $253 . \ldots .$. .............................................. 2.50
Chemistry 1, 2, $61,70,131,153,154,215,216,234,261$, and $262 \ldots \ldots .$.
Chemistry 151, 152, 241, 242, 251, and 252.................................... 8.50
Education 1, 58, 68, and 101..................................................... . . . . 1.00
Education 112, 115, 116, 122, and $131 \ldots . .$. .................................... . . . 7.50
Education 208 (for testing materials in lieu of text).................... 2.50
Engineering
Civil S60-See Summer Session Bulletin.
Civil $61,63,64,112,118,119,120,123,124,135,143,144$, and $240 \ldots .2 .00$
Electrical 153, 154, 161, 162, 163, 164, 261, 262......................... 2.00
General 109................................................................ . . . . 2.00
Mechanical 113, 114, 115, 116, 159, 160, 176............................. 2.50
Forest Botany 224 and 253...................................................... . . . 2.50
Forestry 224, 253, 254, 259, 260, 264, 357a, and 358a....................... 2.50

Geology 51, 52, 101, 151, and 152............................................. 2.50


No texts are required in these courses, but a fee of $\$ 3.00$ is charged, and books are placed in the Library for the use of those taking the courses. This fee is payable at the beginning of the semester and is collected through the office of the Treasurer of the University.
Physics 1 and 2 ..... 5.00
Physics $51,52,101,102,203,204,205,207,213,214,217,218,219,225$, 226 ..... 6.00
Physics 106 ..... 5.00
Zoology 1, 2, 92, 161, 204, 219, 220, 222, 274, 276, 306, 324, 343, 353, and 354 ..... 3.00
Zoology 53, 151, 156, 224, 229, 303, and 321 ..... 5.00

## ESTIMATED EXPENSES FOR AN ACADEMIC YEAR

The necessary expenses of a student are moderate; the University dormitories provide thoroughly comfortable and wholesome living conditions at a minimum of cost, while all charges made by the University have been kept low. Incidental expenses depend naturally upon the tastes and habits of the individual, but the actual necessary college expenses for one year, including board, room-rent, and such University fees as tuition, natriculation, commencement, library, damage, and medical, can be met within $\$ 725.00$ for a two-semester year. Books, laundry, and laboratory fees are not included in this figure.

The Athletic and Publication fees, also included in the above figures, while not essentially University fees, are at the request of the students collected by the Treasurer of the University as designated above. The proceeds of these fees are turned over to these distinct and separate student activities. The Athletic Fee, entitling the holder to admission to all athletic contests held on the University grounds, is collected from all regularly enrolled students. The Publication Fee pays for a blanket subscription to the semiweekly student newspaper, the monthly student magazine, and the student yearbook. With all undergraduates this charge is compulsory, but in the case of graduate students it is optional.

## DORMITORIES

Single room, per semester-Craven, Crowell, and Kilgo Quadrangles,
West Campus............................................................. $\$ 75.00$
Double room, per student, per semester-Craven, Crowell, and Kilgo
Quadrangles, West Campus.
62.50

There are three groups of resident houses designated as Craven, Crowell, and Kilgo Quadrangles on the West Campus. The rooms are single, double, or arranged in suites of two rooms for four students. There are thirty-one houses within the three groups designated by the letters of the alphabet.

There is one building definitely assigned as a Freshman dormitory.
Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business Division, Duke Station, Durham, North Carolina. A reservation fee of $\$ 25.00$ at the office of the Director in the Business Division is required. This reservation fee is deducted from the room charges at the time of registration for the fall semester.

A resident student in order to retain his room for the succeeding semester is required to make application accompanied by a reservation fee of $\$ 25.00$ at the office of the Director in the Business Division. All
rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester, or in the case of a medical student, one quarter, unless by special arrangement with the Director in the Business Division. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of $\$ 1.00$ each day.

The exchange of rooms may be arranged for at the Housing Bureau within fifteen (15) days after the official opening of the semester or quarter of the school term. A charge of two dollars ( $\$ 2.00$ ) will be made for the exchange of rooms after the periods allowed for such exchange. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of Duke University do not assume the responsibility of selecting and assigning roommates, though they will gladly render any assistance possible.

## BOARDING ACCOMMODATIONS

It is the policy of the University to furnish board to its students at actual cost. Charges for board range from $\$ 1.00$ to $\$ 1.50$ per day.

## LAWS REGULATING PAYMENTS

The Executive Committee of the Trustees of Duke University has enacted the following regulations, which govern the payment of all fees due the University:

1. The President and Treasurer of the University have no authority to suspend, or in any way alter, these regulations.
2. Matriculation and tuition fees are never refunded.
3. Any student who has failed to pay his bills on the dates advertised in the catalogue is denied the right to attend classes until his account is settled in full.
4. No student is considered by the Faculty as an applicant for graduation until he has settled with the Treasurer for all of his indebtedness to the University.
5. No student who has not settled all his bills with the Treasurer of the University is allowed to stand the mid-year or final examinations of the academic year.

When a student wishes his bills sent to his parents or guardian, the student or his parent or guardian must so notify the Treasurer of the University in writing in due time, but this in no way releases the student from liability to established penalties if his bills are not paid on the dates advertised.

## TRANSCRIPTS

Students desiring to transfer from Duke University to another institution are entitled to one transcript of their record. A charge of $\$ 1.00$ is made for each additional copy.

## ENGINEERING ORGANIZATIONS AND FRATERNITIES

American Institute of Electrical Engineers; American Society of Civil Engineers; American Society of Mechanical Engineers; Institute of the Aeronautical Sciences; Delta Epsilon Signa (Duke Honorary Engineering Fraternity) ; Pi Tau Sigma (National Honorary, Mechanical Engineering) ; The Engineering Student Govermment Association.

## OTHER ACTIVITIES FOR WHICH ENGINEERS ARE ELIGIBLE

The Young Men's Christian Association is a branch of the national student Christian Association. It aims to enrich not only the religious life of its members as individuals but also to promote religious group activity. Delegates are sent each year to summer conferences, state conventions, interstate conventions, and the state Bible and missionary institutes. Every class is conducted under the auspices of the Church Board.

Other organizations and activities include the following: Debate Council; Duke University Church (Interdenominational); Hoof and Horn Club; Quadrangle Pictures; Student Religious Council; The Duke Players; Town Boys' Club; Social Activities Board; and W. H. Pegram Chemistry Club.
(HONORARY-NATIONAL)
Phi Beta Kappa (Scholarship) ; Phi Eta Sigma (Freshman Scholarship) ; Pi Mu Epsilon (Mathematics) ; Sigma Pi Sigma (Physics); Sigma Xi (Scientific Society).
(HONORARY-LOCAL)
Beta Omega Sigma (Sophomore-Men); 9019 (Scholarship-Men).

## MUSICAL ORGANIZATIONS AND FRATERNITIES

Kappa Kappa Psi (National Band Fraternity) ; The Duke University Instrumental Music Association, comprised of members from Duke University Band, Duke University Orchestra, and chamber music groups: The Men's Glee Club; The University Chapel Choir.

## (SOCIAL FRATERNITIES-NATIONAL)

(The Men's Panhellenic Council)
Alpha Tau Omega; Beta Theta Pi ; Chi Phi ; Delta Sigma Phi ; Delta Tau Delta; Kappa Alpha; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Kappa Psi; Phi Kappa Sigma; Pi Kappa Alpha; Pi Kappa Phi ; Sigma Alpha Epsilon; Sigma Chi ; Sigma Nu; Sigma Phi Epsilon; Zeta Beta Tau.

## STUDENT PUBLICATIONS

(Publications Council)
Archive (Monthly) ; Chanticlecr (Annual) ; Chronicle (Semiweekly); DukEngineer (Bimonthly).

## HONORS AND PRIZES FOR WHICH ENGINEERS ARE ELIGIBLE

To be eligible for Honors, a student must earn during the year a credit of not less than thirty semester hours. Students in the Freshman, Sophomore, and Junior classes who earn an average of at least two and
one-half quality points per semester hour are given Honors. All semester hours on which a student receives a grade are counted in the determination of Honors.

The degree of Bachelor of Arts or of Bachelor of Science with distinction is conferred under the following rules:

Students who have completed a minimum of ninety semester hours in Duke University are eligible for general Honors at graduation. Those who earn an average of at least two and one-half quality points per semester hour are recommended for a degree magna cum laude. Those who earn an average of at least two and three-fourths quality points per semester hour are recommended for a degree summa cum laude. All semester hours taken in Duke University on which a student receives a grade are counted in the determination of Honors.

## PRIZES

The Delta Epsilon Sigma Prize, consisting of an engineering handbook, is awarded each year to the member of the Freshman Class in engineering who is adjudged to be the outstanding student.

Julia Dale Prize in Mathematics. This is a prize of books given annually to the undergraduate who shows the greatest proficiency in the study of the calculus.

The Milmore Prize, consisting of one year's subscription to the Elcctrical World, is awarded each year to that student from North or South Carolina graduating in the Department of Electrical Engineering, who, in the opinion of the Faculty of that department and as shown by his grades, has made the most progress in electrical engineering during his last year in college.

The Institute of the Acronautical Sciences Azvards. Two annual awards, each consisting of a two-year paid-up membership in the Institute and a certificate, presented, respectively, to the student presenting the best paper before a meeting of the Duke student branch of the Institute, and to that student of the Department of Mechanical Engineering making the highest scholastic record in aeronautical engineering courses.

The Sigma Xi Prize. The Society of the Sigma Xi, honorary scientific society, is devoted to the encouragement of scientific research, and seeks to stimulate those who show promise of accomplishment in scientific research. As an encouragement to younger men and women the Duke. Chapter of Sigma Xi has established the following prizes to be awarded annually to students resident at Duke University: $\$ 20.00$ for an undergraduate project or paper, $\$ 20.00$ for a Master's thesis or its equivalent, and $\$ 40.00$ for a Ph.D. dissertation or its equivalent. Nominations, recommendations, copies of theses, reports, or other material must be in the hands of the Secretary of the Chapter on or before May 5.


## $\sqrt{4-2}$

# BULLETIN OF DUKE UNIVERSITY 

## The School of Law



ANNOUNCEMENT FOR 1946-1947

> PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA

## ANNUAL BULLETINS

For General Bulletin of Duke University, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of Undexgraduate Instruction, apply to The Secretary, Duke University, Durhann, N. C.

For Bulletin of The College of Engineering, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Law, apply to The Dean of the School of Lave, Duke University, Durham, N. C.

For Bulletin of The School of Medicine, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.

For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

For Bulletin of The Divinity School, apply to The Dean of the Divinity School, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forestry, Duke University, Durham, N. C.

For Bulletin of The Summer Session, apply to The Director of the Summer Session, Duke University, Durham, N. C.

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## BULLETIN

# OF <br> Duke University 

THE SCHOOL OF LAW


ANNOUNCEMENT FOR 1946-1947

DURHAM, NORTH CAROLINA
1946


## I. FACULTY

ROBERT LEE FLOWERS, A.M., LL.D., President of the University
H. CLAUDE HORACK, Ph.B., LL.B., LL.D., Dean and Professor of Lazv Pb.B. 1899, LL.B. 1900, State University of Iowa; LL.B. 1904, Harvard University; LL.D. 1937, Tulane University; LL.D. 1939, Wake Forest College; Assistant Professor of Law, University of Wisconsin, 1904-07; Professor of Law, State University of Iowa, 1907-30; University of Michigan, summer 1922; University of Wisconsin, summer 1924; University of Southern California, summer 1931; Stanford University, summer 1936; Adviser, Council of Legal Education and Admissions to the Bar of the American Bar Association, 1927.30, member of Council, since 1940; Secretary, Association of American Law Schools, 1926-28, President, 1929; Professor of Law, Duke University, 1930-34; Dean and Professor of Law, since 1934.
BRYAN BOLICH, A.B., B.A. (Juris.), M.A., B.C.L., Professor of Law
A.B. 1917, Duke University; Duke University Law School, 1919-21; B.A. (Juris.) 1923, B.C.L. 1924, M.A. 1928, Oxford University; general practice, 1924-27; Professor of Law, Duke University, since 1927.
JOHN S. BRADWAY, A.B., A.M., LL.B., Professor of Law and Director of the Legal Aid Clinic
A.B. 1911, A.M. 1915, Haverford College; LL.B. 1914, University of Pennsylvania; general practice, 1914-29; Legal Aid Society of Philadelphia, 1914-20; chief counsel, Philadelphia Legal Aid Bureau, 1920-22; Secretary, National Association of Legal Aid Organizations, 1923-40, President, 1940-42; Visiting Professor of Law and Director of the Legal Aid Clinic, University of Southern California, summer 1928; Professor of Law and Director of the Legal Aid Clinic, University of Soutbern California, 1929-31: Professor of Law and Director of the Legal Aid Clinic, Duke University, since 1931.

## THADDEUS DILLIARD BRYSON, LL.D., Professor of Law

Emory and Henry College, 1889-90; University of North Carolina, 1891-95; LLL.D. 1938, Emory and Henry College; general practice, 1895-1918; Solicitor, 20 th Judicial District, North Carolina, 1908-16; Judge, Superior Court, North Carolina, 1918-26; general practice, 1926-27; Professor of Law, Duke University, since 1927.
ELVIN R. LATTY, B.S., J.D., J.Sc.D., Professor of Law
B.S. 1923, Bowdoin College; J.D. 1930, University of Michigan; J.Sc.D. 1936, Columbia University; Instructor in Romance Languages, University of Vermont, 1923-27; general practice, 1930-33; Special Fellow, Columhia University, 1933-34; Associate Professor of Law, University of Kansas, 1934-35; Professor of Law, University of Missouri, 1935-37; George Washington University, summer 1937; Stanford University, summer 1938; University of North Carolina, summer 1942; Special Assistant to the American Ambassador, Caracas, 1942-43; Acting Assistant Chief, Foreign Funds Control Division, Department of State, 1943; Professor of Law, Duke University, since 1937.

## CHARLES L. B. LOWNDES, A.B., LL.B., S.J.D., Professor of Law

A.B. 1923, Georgetown University; LL.B. 1926, S.J.D. 1931, Harvard University; general practice, 1926-27; Assistant Professor of Law, Georgetown University, 1927-28; Professor of Law, Georgetown University, 1928-30; Research Fellow, Harvard Law School, 1930-31; Professor of Law, Georgetown University, 1931-34; Professor of Law, Duke University, since 1934.

## MALCOLM McDERMOTT, A.B., LL.B., Professor of Law

A.B. 1910, Princeton University; LL.B. 1913, Harvard University; general practice, 1913-30; Dean, College of Law, University of Tennessee, 1920-30; University of Southern California, summer 1929; Professor of Law, Duke University, since 1930.

## DOUGLAS BLOUNT MAGGS, A.B., J.D., S.J.D., Professor of Law

A.B. 1922, J.D. 1924, University of California; S.J.D. 1926, Harvard University; general practice, 1924-25; Assistant Professor of Law, University of California, 1926-27; Professor of Law, University of Southern California, 1927-30; Visiting Professor of Law, Columbia University, 1928-29; Yale University, second semester, 1935-36; University of California, summer 1927; Cornell University, summer 1928; University of Chicago, summer 1929; Stanford University, summer 1935; University of North Carolina, summer 1936; Special Assistant to the Attorney General of the United States, $1938-39$ and 1942-43; Special Consultant to the General Counsel, Board of Economic Warfare, 1942; Chief Consultant, Office for Emergency Management, 1942-43; Solicitor of Department of Labor, 1943-45; Professor of Law, Duke University, since 1930 .

## *J. DOUGLASS POTEAT, A.B., LL.B., J.S.D., Professor of Law

A.B. 1923, LL.B. 1926, Furman University; J.S.D. 1933, Yale University; general practice, 1926-30, 1933-36; Associate Professor of Law, Furman University, 1929-30; Professor of Law, Furman University, 1930.33; University of North Carolina, summer 1940; University of California, summer 1941; Assistant General Counsel, Board of Economic Warfare, 1942-44; Executive Vice-Chairman of the American Red Cross, 1945-; Professor of Law, Duke University, since 1936.

## WILLIAM R. ROALFE, LL.B., Law Librarian and Professor of Law

LL.B. 1922, University of Southern California; general practice, 1923-25; Law Librarian, University of Southern California, 1927-30; President, American Association of Law Libraries, 1935-36; with Office of Price Administration as Attorney in Court Review, Research and Opinion Branch, 1943; as Chief Counsel, Cereals, Feeds, and Agricultural Chemical Section, Food Price Division, 1944-45; Law Librarian, Duke University, since 1930; Professor of Law, Duke University, since 1946.

## PAUL H. SANDERS, A.B., LL.B., Professor of Law

A.B. 1931, Austin College; LL.B. 1934, Duke University; general practice, 1934; Assistant to Director of National Bar Program, American Bar Association, 1934-36; Secretary, Criminal Law Section, American Bar Association, since 1940; Assistant Professor of Law, Duke University, 1936-40; Principal Mediation Officer, National War Labor Board, 1942; Regional Attorney for the Fourth Region, National War Labor Board, 1942-44; Vice-Chairman for the Fourth Region, National War Labor Board, 1944; Lt. (jg) United States Naval Reserve, 1944-; Associate Professor of Law, Duke Úniversity, 1940-45; Professor of Law, Duke University, since 1945.

## HAROLD SHEPHERD, A.B., J.D., Professor of Law

A.B. 1919, J.D. 1922, Stanford University; Dean and Professor of Law, University of Wyoming, 1922-23; Associate Professor of Law, Stanford University, 1923-26; Professor of Law, Stanford University, 1926-30; Visiting Professor of Law, University of Chicago, 1929-30; Professor of Law, University of Chicago, 1930-31; Columbia University, summer 1929; University of Minnesota, summer 1930; Stanford University, summer 1932; Dean and Professor of Law, University of Washington, 1931-36; Professor of Law, University of Cincinnati, 1936-39; Secretary, Association of American Law Schools, 1938-40, President, 1941; Military service, 1942-45; Colonel, Ordnance Department, Army of the United States, Chief, Legal Division, Office Chief of Ordnance; Professor of Law, Duke University, since 1939.

Edwin Constant Bryson, LL.B., Assistant in Legal Aid Clinic Alton J. Knight, A.B., LL.B., Assistant in Legal Aid Clinic Charles Henderson Miller, A.B., LL.B., Assistant in Legal Aid Clinic Allston Stubbs, A.B., LL.B., LL.M., Assistant in Legal Aid Clinic Mary Simmons Covington, A.B., LL.B., Research Librarian, School of Law Katharine B. Day, Assistant Cataloger, School of Laze Library Marianna Long, Head Cataloger, School of Law Library Helen Mildred Kendall, A.B., Registrar

## LAW SCHOOL COMMITTEE OF THE BOARD OF TRUSTEES

Willis Smith, Raleigh, North Carolina
B. S. Womble, Winston-Salem, North Carolina
R. G. Cherry, Raleigh, North Carolina
J. P. Frizzelle,'Snow Hill, North Carolina

* On leave of absence.


## II. PROGRAM AND SCHOOL CALENDAR

The Duke Law School will return to its regular pre-war three-year (two semesters in each year) program with the beginning of the Fall Semester, 1946. It will, however, continue its wartime accelerated program for students who enter the school not later than the Summer Session of 1946, and for students so entering a program of study has been arranged which will enable them to complete their law work in two calendar years. Students who have completed the first year of law study at this or any other approved law school may attend the 1946 or 1947 Summer Semester, thus accelerating their study of law to this extent. For further details see "Times of Admission," page 7, and "Program of Instruction," page 19.

The Summer Session for 1946 will begin on May 27, and end September 7 ; the Fall Semester, 1946, will begin on September 23 and end January 18, 1947 ; and the Spring Semester for 1947 will begin on January 20, 1947, and end May 10, 1947.

The University and the School of Law reserve the right to make such changes in the courses offered and in all other features of the program herein described as may be deemed necessary or desirable.

## III. THE SCHOOL: ITS PURPOSES AND METHODS

Built on the foundation of the School of Law of Trinity College, with its history of legal instruction running back to the middle of the past century, the Duke University School of Law was established in 1924. In 1930 the School was moved into its new building, the Faculty and Library were greatly increased, and the activities of the School broadened. The School of Law is a member of the Association of American Law Schools and is on the "Approved List" of the American Bar Association. In the pre-war period, the School had an average representation in its student body each year of more than thirty states and sixty institutions of higher learning. Even during the war period, twenty-eight states and sixty-five institutions have been represented.

The curriculum of the School of Law provides thorough preparation for the practice of law in any state, and, since the enlargement of the School in 1930, its graduates have been admitted to the bar in forty states. Opportunities for specialization in particular branches of the law are afforded.

In carrying out the trust imposed by the Indenture establishing the Duke Endowment, the School of Law seeks to have the student acquire knowledge and comprehension not only of legal doctrine, but also of the judicial process and of the social, economic, and political problems with which law and lawyers must deal. The method of instruction employed compels analysis of judicial opinions and inquiry into the non-legal as well as the legal considerations which underlie them. In appropriate courses, special consideration is given to the work of the legislative and administrative agencies of government, and in recognition of the increasing importance of the role of the lawyer in government service and in representing private interests before government agencies, an unusually rich and varied program is offered in the public law field. Scope for creative student work is provided by seminar courses and supervised individual study and research.

The student is not left to obtain practical training in his first years of practice. In the practice course and in the work of the Legal Aid Clinic, described elsewhere in this bulletin, the student secures experience in important phases of professional activity. A student Bar Association affords a means whereby the student may gain acquaintance with the professional organizations through which a lawyer may and should contribute to the well-being of his profession and of society.

For details of the program of study see "Program of Instruction," page 19; the separate courses are described on pages 22 through 27.

## IV. ADMISSION OF STUDENTS-REGISTRATION-FEES

## DIRECTIONS TO APPLICANTS FOR ADMISSION

Applications should be made on the prescribed Law School Application blanks which will be sent upon request, and no application is complete until all required documents are on file. Each application for regular or advanced standing must be accompanied by a complete transcript of record and evidence of graduation or right to honorable withdrawal from the institution from which credit is offered. To the application blank should be attached a recently made personal photograph. Except in the case of veterans, letters from responsible persons with whom the applicant has been associated are required. Such letters should certify as to the character and ability of the applicant.

It is desired that students may be selected who give promise of leadership in some of the various phases of professional activity. It is recognized that such selection is difficult. Graduation from Duke University School of Law, however, is intended to constitute evidence of capacity for superior work in some branch of the profession of law. Applicants for admission and their sponsors are requested to keep this fact in mind.

## TIMES OF ADMISSION

Beginning students may enter the Law School either at the beginning of the Summer Session, 1946, or at the beginning of the Fall Semester, 1946. Thereafter, beginning students will be admitted only in the Fall Semester. A full semester's program of instruction will be offered to beginning students who enter in the summer of 1946, and the work of the Fall Semester, 1946, the Spring Semester, 1947, and the Summer Semester of 1947 have been so arranged that these students may continue an uninterrupted program of study so as to enable them to graduate at the end of the Spring Semester, 1948. For detailed statement of courses to be offered, see Program of Instruction, page 19.

## REQUIREMENTS FOR ADMISSION

After the end of the Spring Semester, 1946, the Duke Law School will return to the admission requirement of three years of college credit (three-quarters of the work acceptable for a Bachelor's degree granted on the basis of a four-year period of study).

The veterans' admission requirements, whereby military service may be substituted for one year of the three-year college entrance requirement, are stated below.

## VETERANS' ADMISSION REQUIREMENTS

Any person who served in the active military or naval service on or after September 16, 1940, and prior to the termination of the present war, and who shall have been discharged or released therefrom under con-
ditions other than dishonorable, and who either shall have served ninety days or more (exclusive of any period he was assigned for a course of education or training under the Army Specialized Training Program or the Navy College Training Program), or shall have been discharged or released from active service by reason of an actual service-incurred injury or disability, may substitute such term of service for one year of the three-year college entrance requirement. Academic credits will be recognized if gained through examinations on work of college grade pursued while in the military or naval service, if such work is given credit by an approved college; such credits, however, may not exceed one year of the required two years of college study.

The Duke University School of Law has been approved by the Veterans' Administration for law study under the provisions of the Vocational Rehabilitation Act, Public Law 16, and the Servicemen's Readjustment Act of 1944, Public Law 346, often referred to as the "G.I. Bill of Rights." Duke University maintains an office for the handling of the interests of the many students studying under the supervision of the Veterans' Administration. The Secretary of the University is liaison representative and any matters concerning veterans' rights may be taken up with his office.

## GRADUATE RECORD EXAMINATION

The Carnegie Foundation for the Advancement of Teaching provides for examinations to be conducted in many parts of the country whereby a student has an opportunity to test his own performance and to obtain an impartial record of his knowledge. The scores given represent the student's standing with respect to his knowledge of the subjects tested. Applicants for admission are advised that reports of their scores on the Graduate Record Examinations will be regarded as valuable evidence concerning their fitness for admission as it is a test of the student's general intellectual accomplishment. Though not required, the scores made on this examination will be welcomed as an especially desirable credential. Students who take a Graduate Record Examination must make their arrangements directly with the Graduate Record Office, 437 W. 59th St., New York City. The charge for this examination is a nominal fee of $\$ 3.00$.

## COMBINED COURSE

A number of colleges, upon application by their students, have permitted those who have completed three years of undergraduate work to enter the Law School of Duke University and upon the satisfactory completion of the first year of law school work to receive their Bachelor of Arts degree from such colleges. It is suggested that students desiring to enter Duke University School of Law make inquiry of their proper college authorities regarding this point.

A student from an undergraduate college of Duke University who has completed three years of study may apply to that college to enroll in a combined course wherein his first year of law study may be accepted
toward the Bachelor of Arts degree, and, upon the completion of four additional semesters of law study, he will receive the Bachelor of Laws degree.

## ADMISSION TO ADVANCED STANDING

Any person who has complied with the requirements for admission set forth in this announcement prior to the commencement of his law study, who shall present evidence of the satisfactory completion of any part of the curriculum at any law school which is a member of the Association of American Law Schools, and who is eligible for readmission to the law school from which he proposes to transfer may be admitted to advanced standing, subject to such rules as would be applicable to students in this School having a comparable scholastic record. Provisional credit for courses so completed shall be given, final credit for such work to be conditioned on the completion of at least one full year of law study in this School with an average at least five points above the passing grade. Adjustment of credit for work done in such other law schools may be made by the Dean or by vote of the Faculty.

## CANDIDATES FOR GRADUATE DEGREES

Applications for admission to graduate study should be addressed to the Dean of the Law School and should inchude transcripts of records of legal and pre-legal work. For the requirements for the graduate degrees see pages 13 and 14 .

## MATRICULATION, REGISTRATION, AND ENROLLMENT

Registration must be completed on the first day of each semester. Instruction will begin in all classes on the following day. The applicant must obtain from the Dean of the Law School an admission card, indicating that he is entitled to register. Registration is conducted in the Law Building. All students, both old and new, are required to register at the beginning of each semester, at which time class schedule and course cards must be filled out and approved. Students matriculating in any semester at a date later than that prescribed in this bulletin shall pay to the Treasurer a penalty of $\$ 5.00$ for late registration unless excused therefrom. .

## REGISTRATION FOR BAR EXAMINATIONS

Many states now require that the student, prior to or shortly after beginning the study of law, must register with the board of bar examiners of the state in which lie expects to practice. Each student should write to the secretary of the board of bar examiners of such state in order to be sure that all requirements are fulfilled.

## CONDUCT OF STUDENTS

All students are admitted subject to the rules of the University and of the School of Law, and continuance in the School is conditioned upon the observance of such rules.

The University expects of its students loyal and hearty co-operation
in developing and maintaining high standards of conduct as well as of scholarship. The University, therefore, reserves the right, and matriculation by the student is a concession of this right, to compel the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge be made against the student.

## FEES AND EXPENSES

Tuition and registration fees are due at the beginning of each semester. The matriculation fee is $\$ 25.00$ a semester. The tuition fee is $\$ 100.00$ a semester. A damage fee of $\$ 1.00$ is collected at the beginning of the first semester only, an athletic fee of $\$ 5.00$ at the beginning of each Fall and Spring semester, a library fee of $\$ 5.00$ each semester, and a medical fee of $\$ 5.00$ each semester. The graduation fee, payable by all students to whom a degree is awarded, is $\$ 10.00$.

Payment of the athletic fee entitles the student to admittance to all athletic events on the campus.

The payment of the medical fee entitles the student to full medical and surgical care, with the exceptions noted below. This service is under the direction of the University Physician with the co-operation of the Staff of Duke Hospital. It includes hospitalization, medical and surgical care, drugs, dressings, x-ray studies, and ward nursing. A charge for board is made at the same rate as in the University dining halls, and student meal tickets for these halls are accepted in payment of this board. Refraction of eyes, treatment of teeth and of all chronic conditions, such as the removal of diseased tonsils, are not included in this service. The cost of any necessary braces and orthopaedic appliances as well as of special nursing must be borne by the student.

Board may be secured at the University Union at from $\$ 1.00$ to $\$ 1.50$ per day.

The cost of law books will average, through the three years, between $\$ 20.00$ and $\$ 30.00$ per semester.

## THE GRADUATE DORMITORY AND THE "LAW CABINS"

Furnished double rooms may be secured in the graduate dormitory on the West Campus at $\$ 62.50$ per person per semester. A few single rooms are available at $\$ 75.00$ per semester.

A group of $\log$ cabins, a part of the dormitory system, especially designed as a study center for law students, is located in the Duke Forest about five minutes' walk from the Law Building. These cabins, five in number, including a large cabin for use as a social hall, house thirty-two students. All rooms in the law cabins are furnished double rooms and may be secured at $\$ 40.00$ per person per semester.

These charges in each case include heat, light, water, and janitorial service but do not include pillows or bed clothing of any kind.

Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business

Division, Duke Station, Durham, North Carolina. A reservation fee of $\$ 25.00$ must accompany the application for a room. The reservation fee is deducted from the room charges at the time of registration.

Each student is expected to supply necessary sheets, blankets, pillows, rugs, and curtains. Furniture, beds and mattresses ( $39^{\prime \prime} \times 74^{\prime \prime}$ ), tables, chairs, dressers, mirrors, and window shades are furnished by the University.

Law students are advised to make early application, since assignment of rooms is made considerably in advance of the beginning of each semester. The applicant should state that he has been accepted for admission to the School of Law. All dormitory or cabin rooms are to be occupied under the rules and regulations established by the University. Law students are not required to live in the University dormitories.

Further information will be sent upon request. Please address
The Dean of the School of Law
Duke University
Durham, North Carolina

# V. REQUIREMENTS FOR BACHELOR OF LAWS DEGREE 

## BACHELOR OF LAWS DEGREE

Upon favorable recommendation of the Faculty, the degree of Bachelor of Laws will be conferred on students who shall have successfully completed six semesters' study of law, the last two semesters of work immediately preceding the granting of such degree having been completed in this Schooi.

A student shall be deemed to have completed successfully six semesters' study of law if during this period he has
(1) secured a passing grade in courses aggregating the number of semester hours in the first-year program, plus forty-eight semester hours;
(2) secured in every required course a grade not requiring repetition thereof ; and
(3) secured an average grade at least five points above passing in all work taken other than first-year courses, or, if the grade in such work is lower than that above specified, an average grade of five points above passing in all work taken.

Students who shall have spent only their last two semesters of study in residence in this School must have received an average grade at least five points above passing for that year.

Minimum and maximum student loads:
No regular student is permitted to take less than ten course hours per semester.

No first-year student is permitted to take courses in excess of the firstyear program.

Second- and third-year students are not permitted to take for credit more than fifteen course hours per semester; nor to audit and take for credit more than sixteen course hours per semester. In exceptional cases, students may petition the Faculty or appropriate Committee of the Faculty for permission to take more or less than the prescribed maximum or minimum loads.

## VI. GRADUATE WORK IN LAW

## REQUIREMENTS FOR ADMISSION TO GRADUATE STUDY

Any person who shall have received the first degree in law from a law school qualified for membership in the Association of American Law Schools may be admitted as a candidate for the degree of Master of Laws. In exceptional cases an applicant who does not meet all the above requirements may, on vote of the Faculty, be admitted to candidacy for this degree where he is able to demonstrate that he is specially qualified, as by reason of practice or teaching.

Any person holding the degree of Master of Laws from this or any cther law school which is qualified for membership in the Association of American Law Schools, on vote of the Faculty, may be admitted to candidacy for the degree of Doctor of Juridical Science provided he completed the work for the Master's degree with distinction.

The Faculty, however, may require of an applicant complying with this standard the publication of legal writings deemed satisfactory by the Committee on Graduate Study as a condition to admission to candidacy for this degree.

## THE DEGREE OF MASTER OF LAWS

Upon favorable recommendation of the Faculty, the degree of Master of Laws will be conferred on students who have successfully completed during a period of residence at this School totaling at least two semeslers a course of study approved by the Committee on Graduate Study.

The courses of study leading to this degree are designed to provide for the needs of two classes of students: (1) graduates of approved law schools who desire an extra year of study for the purpose of undertaking an intensive study of some specialty, or who desire to broaden their legal education; (2) graduates of approved law schools who desire to teach law or engage in legal research and who intend to become candidates for the degree of Doctor of Juridical Science.

No thesis is required for the degree of Master of Laws. The course of study is prescribed by the Committee on Graduate Study after consultation with the individual student. Opportunity will be afforded the student to include in his program such second- and third-year law courses, not already completed, as are desirable for the rounding out or supplementing of his previous training. In some cases, courses in other departments of the University may be included. In the case of students whose interests lie in further preparation for practice, the course will normally include registration in subjects totaling twelve hours each semester. In the case of students interested primarily in legal research, a lighter schedule, so far as enrollment in formal courses is concerned, may be arranged. In cases where less than twelve hours work is pre-
scribed for either semester, the Committee on Graduate Study may require that the student complete the work undertaken with a grade considerably higher than that required of candidates for the first degree in law.

## THE DEGREE OF DOCTOR OF JURIDICAL SCIENCE

Upon favorable recommendation of the Faculty, the degree of Doctor of Juridical Science will be conferred on students admitted to candidacy for that degree who complete and submit a monograph or series of essays suitable for publication and deemed by the Faculty to be of distinguished character. At least one academic year, and, in the absence of an extension granted by the Faculty upon petition thereto, not more than three years, must elapse between the awarding of the Master's degree and the awarding of the degree of Doctor of Juridical Science. Students who have received the degree of Master of Laws from another law school must spend at least two semesters engaged in research at this School and in addition may be required to complete a course of study prescribed by the Committee on Graduate Study.

## VII. SPECIAL FACILITIES AND ACTIVITIES

## THE LAW SCHOOL BUILDING

The Law Building, like all other structures on the main campus of Duke University, is in Tudor Gothic style of colorful Cambrian stone from the Duke University quarries. It was occupied by the School of Law for the first time in September, 1930. In it are classrooms, seminar rooms, offices for Faculty and Staff, quarters for the Legal Aid Clinic and for the Duke Bar Association, a courtroom equipped for trial court and appellate court sessions, and the Law Library. For a description of dormitory accommodations, see page 10 .

## THE LAW LIBRARY

The Law Library, containing a collection of seventy-nine thousand volumes, is the largest law school collection in the South. It consists of American and English statutory and case law; a collection of Continental law materials; treatises, digests, encyclopedias; the various selected case series; a comprehensive collection of legal periodicals; and publications in the fields of history, economics, government, and the other social sciences, supplemental to the strictly legal materials. The Library receives every current legal periodical of general interest printed in the English language.

There are several thousand additional volumes of a legal nature in the main library building, immediately adjoining the Law School, as well as the general collection of over half a million volumes, to all of which the law students and Faculty have convenient access.

The Law Library is administered by a professionally trained staff and is open to the public daily throughout the year and in the evenings as well whenever the Law School is in session.

## THE LEGAL AID CLINIC

A Legal Aid Clinic was organized at the School of Law in 1931 under the direction of Professor John S. Bradway, who had directed similar undertakings in Philadelphia and Los Angeles. The purpose of the Clinic is threefold: to give the student experience in handling actual cases; to develop creative skills, techniques, and mental habits; to encourage a sense of responsibility to client, court, profession, and community. The student is obliged to synthesize his knowledge in applying it to concrete situations which may often cut across course boundaries. He is introduced to the technique of fact gathering, the steps in a legal plan of campaign, the handling of clients, the management of a law office. A series of exercises are conducted in legal research and briefing leading in the first semester to the writing by each student of a trial brief and in the second semester an appellate brief for a lawyer in active practice. Classroom work involves laboratory exercises in preparation for the
handling of actual cases. The law practice in the Clinic is of a sort calculated to stress the ethical responsibilities of the lawyer and the social implications of his work. Instruction in the handling of the actual cases is individualized. Training in the art of interprofessional co-operation is provided through contacts between the Clinic and various agencies of social welfare in North Carolina.

The Legal Aid Clinic is in effect an active law office offering the student, under supervision, experience in interviewing actual clients, investigation of facts, preparing cases for adjustment or for trial in court, writing legal documents, briefing, and other tasks familiar to the practicing attorney. Approximately four hundred persons a year apply for the services of the Clinic. Only those applicants who are unable to pay counsel fees, and only those cases where there is no opportunity for a contingent fee are accepted.

The activities of the Clinic are centered in a suite of offices in the Law School Building, and in an interviewing office in the business center of Durham. In addition to the Director, a staff of four members of the North Carolina State Bar assist in the educational and supervisory activities of the Clinic and in representing its clients in court proceedings. The work in the Clinic in no way conflicts with that in the practice course.

## THE PRACTICE COURSE

The practice course in the School of Law is under the direction of Judge T. D. Bryson, who for eight years was judge in the Superior Court of the Twentieth Judicial District of North Carolina. The object of the course is to offer advanced students an opportunity to visualize by actual experience the application of the principles of law imparted in other courses.

The course features trial court practice in both civil and criminal actions, appellate practice, the drawing of contracts and wills, making abstracts of titles, and drafting of other legal papers incident to the work of the active legal practitioner. In order that the work may correspond to the work of a trial court, a courtroom with the usual appointments has been provided.

## LAW AND CONTEMPORARY PROBLEMS

The School of Law publishes a quarterly, Law and Contemporary Problems, under the editorship of Professor Latty. This periodical, now in its eleventh volume, presents in each issue a symposium on a problem of current legal importance, in which the interrelated social and economic, as well as legal, factors are discussed by writers of competence in these respective fields. Where student research may contribute to the understanding of the legal aspects of such problems, student writings are accepted for publication. Included among the topics discussed in past issues of Law and Contemporary Problems are food and drug control, low-cost housing, installment selling, migratory divorce, alimony, expert testimony,
social security legislation, the compensation of the motor accident victim, the Securities Act of 1933, price discrimination and price cutting, collective bargaining under the Wagner Act, the wage and hour law, the Sherman Antitrust Act, federal income and estate taxation, railroad reorganization, alcoholic beverage control, combating the loan shark, governmental marketing barriers, consumption taxes, emergency price control, governmental, tort liability, labor in wartime, excess profits taxation, renegotiation and termination of war contracts, children of divorced parents, enemy property, financing small business, and aviation transport.

The circulation of Lazw and Contemporary Problems extends not only to members of the legal profession and law libraries throughout the country, but also to industrial and financial concerns, governmental agencies, and public and general university libraries. Individual issues are not infrequently used as materials for study in university courses.

## THE DUKE BAR ASSOCIATION

The Duke Bar Association was established in the spring of 1931. It is composed of all the students of the Law School and is organized along the lines of the American Bar Association. Its purpose is to introduce the student to the problems considered by the bar in professional organizations and to develop professional consciousness and responsibility. The publication of the Duke Bar Association Journal was suspended during the war period. Dean Horack of the Law Faculty serves as general adviser to the student officers.

## SCHOLARSHIPS AND LOAN FUNDS

A limited number of scholarships covering tuition and matriculation fees ( $\$ 250$ ) are available to first-year students, graduates of approved American universities and colleges, who are in need of such assistance. Applicants must have made excellent records in their college work and must show unusual promise of success in the study of law.

Applications for scholarships should be presented to the Dean of the Law School, together with a transcript of college work and letters of recommendation from responsible persons, certifying to the character and fitness of the applicant.

Other scholarships are awarded, as funds may permit, to high-ranking students who have spent a year or more at the Law School. There are also a number of positions as assistants in the Law Library and as research assistants which are open to students, particularly in their second or third year, who do not receive other aids from the University.

The University administers certain endowed loan funds for the benefit of students who are not financially able to meet their expenses, for the purpose of aiding worthy students who have established a satisfactory record at the School to continue their education.

Two funds have been provided out of which small loans may be made to tide students over temporary financial emergencies arising during the course of the year. One of these was supplied by the Law School Guild
and is limited as to amount and duration of loan. The other is due to the generosity of Mr. P. Frank Hanes of the Winston-Salem bar and is limited to the needs of selected students. These funds are administered by a committee of the Faculty.

## WILLIS SMITH PRIZE

Mr. Willis Smith, a member of the Raleigh bar and Chairman of the Law School Committee of the Board of Trustees of Duke University, awards each year to that member of the graduating class of the Law School who has maintained the highest scholastic average during the entire three years of law school work, a prize consisting of a set of books selected personally by Mr. Smith each year for that purpose. To qualify for this prize the student must have made an outstanding record throughout his law school course.

## ORDER OF THE COIF

A chapter of the Order of the Coif, national legal scholarship society, has been established at Duke University School of Law. Its purpose is "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship." Election is restricted to the ten per cent of the graduating class who have attained the highest rank in their law school work.

## RECREATIONAL FACILITIES

The University is located about two miles from the business district of Durham on wooded hills constituting part of the five-thousand-acre Duke Forest, which is maintained by the School of Forestry. Within a short distance from the campus are facilities for golf, horseback riding, and woodland hiking. These activities are available the year round in the mild climate of the Piedmont section of North Carolina. Students of the Law School are entitled to the use of the University gymnasium, tennis courts, swimming pool, and similar privileges without cost. Motion pictures are shown in Page Auditorium twice a week, and concert programs, recitals, lectures, and plays are presented frequently.

## VIII. PROGRAM OF INSTRUCTION

## SUMMER SEMESTER-1946

A full semester's work will be offered for beginning and advanced students in the summer of 1946.

## THE FIRST-YEAR PROGRAM

The following courses, all of which are required, will be offered firstyear students:
Chattel Transactions ..... 4
Criminal Law and Its Administration ..... 3
Introduction to Procedure ..... 3
Torts ..... 5
THE SECOND- AND THIRD-YEAR PROGRAM

The following courses will be offered for students who have completed the required courses of the first year:


The satisfactory completion of forty-eight semester hours and a minimum of twelve hours each semester in addition to the first-year program is required for graduation. Second- and third-year students usually carry from thirteen to fifteen hours of courses each semester.

Up to two hours credit per semester may be obtained by students arranging either to engage in the individual study of a branch of law or to conduct research on a legal problem. Arrangements for such work may be made only upon the recommendation of the instructor under whose supervision it is to be carried out.

The course in Pleading is prerequisite to the course in Practice. Except with the permission of the instructor, students may not enroll in courses numbered II before completing courses of the same name numbered I. Permission of the instructor is also required for enrollment in Federal Taxation Seminar by students who have not completed Taxation.

## FALL AND SPRING SEMESTERS—1946-47

With the Fall Semester of 1946, the Law School will return to its regular pre-war three-year (two semesters in each year) program of instruction. The courses have, however, been so arranged that students who entered under the accelerated program prior to the Fall Semester, 1946, will be able, by taking advantage of the Summer Semesters of 1946 and 1947, to graduate in two calendar years from the date of admission.

For students who enter in the summer of 1946, the following courses will be offered in the Fall and Spring semesters, 1946-47:

| Fall-1946 | Spring-1947 |
| :---: | :---: |
| *Agency . . . . . . . . . . . . . . . . . . . . . . 2 | Business Associations I . . . . . . . . 3 |
| *Contracts . . . . . . . . . . . . . . . . . . . . 4 | *Contracts . . . . . . . . . . . . . . . . . . . . 4 |
| *Family Law ...................... 2 | Family Law Seminar ............. 2 |
| *Legal Research and Writing ...... 2 | Landlord and Tenant . . . . . . . . . . 2 |
| *Possessory Estates . . . . . . . . . . . . . 3 | *Legal Research and Writing ...... 2 Trusts |
|  | Wills and Administration of Estates $\qquad$ |

* Required courses.

For students who enter in the Fall Semester, 1946, the following courses will be offered during the Fall and Spring semesters:

| First Year Fall | Spring |
| :---: | :---: |
| Contracts ............................... 4 | 4 |
| Legal Research and Writing ........... 2 | 2 |
| Torts . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 | 2 |
| Introduction to Procedure ............. 3 |  |
| Possessory Estates ...................... 3 |  |
| Chattel Transactions | 4 |
| Criminal Law and Its Administration | 3 |
| 15 | 15 |

The following courses will be offered for students who have completed the work of the first year :

| Fall | Spring | Spring |
| :---: | :---: | :---: |
| Constitutional Law ....... 2 | 3 | Business Associations I ........ 3 |
| Credit Transactions ...... 2 | 2 | Contracts II ................... . 2 |
| Equity . . . . . . . . . . . . . . . . . 2 | 2 | Debtors' Estates . . . . . . . . . . . . . 3 |
| Evidence . . . . . . . . . . . . . . 2 | 2 | Federal Jurisdiction and |
| Legal Aid Clinic . . . . . . . . 3 | 2 | Procedure . . . . . . . . . . . . . . . 2 |
| Practice .................. 2 | 2 | Future Interests ............... 3 |
| Taxation .................. 2 | 2 | Labor Law Seminar ............ 2 |
| Administrative Law ...... 2 |  | Landlord and Tenant . . . . . . . . . 2 |
| Agency .................. 2 |  | Legal History ................. 2 |
| Business Associations II .. 3 |  | Legislation Seminar ............ 2 |
| Conflict of Laws . . . . . . . . 3 |  | N. C. Statutes . . . . . . . . . . . . . . . 2 |
| Conveyancing ............ 3 |  | Regulation of Business ........ 3 |
| Damages . . . . . . . . . . . . . . 2 |  | Family Law Seminar .......... 2 |
| Family Law ............. 2 |  | Seminar in Federal Taxation . . . 2 |
| Insurance ................ 2 |  | Seminar in Practice before |
| Labor Law . . . . . . . . . . . . . 3 |  | Governmental Agencies ...... 2 |
| Legal Ethics .............. 1 |  | Trusts . . . . . . . . . . . . . . . . . . . . 3 |
| Legislation . . . . . . . . . . . . 2 |  | Wills and Administration |
| Municipal Corporations ... 2 |  | of Estates . . . . . . . . . . . . . . . 3 |
| Negotiable Instruments and Banking ............. 3 |  |  |
| Pleading . ................ 3 |  |  |

## SECOND-AND THIRD-YEAR PROGRAMS

All courses offered for the second and third years, with exception of Legal Ethics which is required of all students, are elective. For guid-
ance of second-year students in 1946-47, the Faculty recommends the inclusion of the following courses in their progran of study:

| Subject | Hours per Scmester |  |
| :---: | :---: | :---: |
| Constitutional Law | 2 | 3 |
| Credit Transactions | 2 | 2 |
| Equity |  | 2 |
| Conveyancing |  |  |
| Pleading (Prerequisite to Practice) |  |  |
| Trusts |  | 3 |
| Business Associations I |  | 3 |
| Contracts II |  | 2 |
| Negotiable Instruments and Banking | 3 |  |
|  | 15 | 15 |

For the student who wishes to take, in his second year, courses other than those listed above, the following are suggested as suitable for study in the second year:


It should be distinctly understood that the courses in this second list are not suggested as either more or less suitable for study in the third year than those not included therein. In the selection of courses in addition to or in substitution for those recommended above, the student should consult the course groupings appearing at another place in this bulletin, so that he may choose those courses which will contribute most directly to his work in the field of study to which he wishes to devote his major efforts in the third year. The student intending to enter the general practice of law is cautioned, however, not to sacrifice, through undue concentration, the acquisition of a broad foundation for his subsequent activities.

# DESCRIPTION OF COURSES 

## ACADEMIC YEAR-1946-47

## 1. GENERAL COURSES

Torts. Liability in damages for injuries to person and property inflicted intentionally, negligently, or innocently; justification and excuse; contributory negligence; proximate cause. Liability for false representations, defamation, including breach of contract, interference with business relations, unfair competition, strikes, etc. The measure of damages in tort cases. Three hours a week first semester, two hours a week second semester. Professor Maggs

Equity. The origin and jurisdiction of equity; equitable relief as based on the inadequacy or lack of a legal remedy; the relation of equity and the common law; enforcement of equitable decrees; application of the discretionary maxims; injunction against tort and crime. Two hours a week throughout the year.

Dean Horack
Trusts. The nature, creation, and elements of a trust; charitable trusts; resulting and constructive trusts; administration of trusts; liabilities to third persons; transfer of the cestui's interest; persons bound by a trust; termination of a trust. Three hours a week.

Professor Lowndes
Conflict of Laws. A study of the territorial jurisdiction of courts, the enforcement of foreign judgments, and the problems arising when the operative facts of a case are connected with jurisdictions having different rules of law. A part of the course will be directed to the study of assigned problems, utilizing related cases in the casebook for the purpose. Three hours a week.

## Professor to be Announced

Family Law. A seminar approach to the cases, statutes, and sociological theories covering the contract to marry, its formation and breach; marriage; annulment; divorce; separation; property rights; and international jurisdiction. Selected materials. Two hours a week.

Professor Bradway
Family Law Seminar. A seminar approach to the efforts of the social sciences, including the law, to deal with the intricate and perplexing problems of the modern family. Readings are assigned in legal and sociological material. Class discussions are based upon some central topic, such as divorce, domestic relations courts, etc. Written reports required in lieu of an examination. Family Law is prerequisite. Two hours a week. Professor Bradway

North Carolina Statutes. A study of selected statutes of North Carolina with discussion of their application, and an analysis of the decisions of the Supreme Court of North Carolina construing them. Two hours a week.

Judge Bryson
Damages. The measurement of damages with special emphasis upon the application of the standards of value and certainty, and upon the relation between the procedural and substantive aspects of damage litigation. Two hours a week.

Professor Shepherd
Legal History. A study of the development of fundamental English and American legal institutions, followed by a historical consideration of certain doctrines of the common law. Assigned readings and discussion meetings. Two credit hours.

Professor Bolich

## 2. BUSINESS COURSES

Contracts. Sealed contracts; problems in the formation of simple contracts (making of promises and judicial standards of interpretation, offer and acceptance) ; the consideration doctrine ; third party beneficiaries; assignments ; Statute of Frauds, including legal effects of failure to comply; joint and several contracts; the performance and breach of contract (conditions, order of performance, anticipatory breach); illegal bargains (types, nature and effect of illegality), discharge of contracts. Rules and principles of damages in contract actions. Four hours a week throughout the year. Professor Shepherd

Agency. Creation, duration, and termination of the employment relation, including personal injury risks in the employment relation and workman's compensation; risks in business operations conducted through or for other persons, including respondeat superior, authority of various types of agents, managers, partners; an introduction to forms of business enterprise as bearing upon the risks (and limitations thereon) of conducting business in association with other persons. Two hours a week.

Professor Latty
Negotiable Instruments and Banking. Negotiability; execution of negotiable instruments; formal requisites of negotiable instruments; liability of parties; negotiation; holders in due course; and discharge. Legal relations between customer and banker; duties of depositor and bank toward each other; collections, and banker's lien and set-off. Three hours a week.

Professor Lowndes
Insurance. The function and theory of insurance; insurable interest; making the contract; ascertainment and control of risk; waiver and estoppel; rights under life policies. Two hours a week. Professor Sanders

Business Associations I. Emphasis is more on corporations than on partnerships, joint-stock companies, or business trusts. In approximately the following order are studied: formation of these business associations, problems of their "entity," position of the management, ultra vires, stockholders' rights and powers, stock structure and classification of shares, function of corporate capital and its bearing on dividends and stock purchases, liability on subscriptions, watered stock, stock transfer, stockholders' suits. Brief survey is given of capital reductions, capital readjustments, fundamental corporate changes and marketing of securities, all of which are studied more in detail in the Finance and Accounting course. Three hours a week.

Professor Latty
Business Associations II-Finance and Accounting. A study of capital readjustments (but not reorganization of insolvents) ; capital, surplus and capital reductions; relation of accounting to ascertainment of funds available for distribution and other purposes, with introduction to book entries and emphasis on asset valuation; no-par stock; blank stock; preferred stock provisions with emphasis on the draftsman's problems and point of view; hybrid and convertible securities; corporate bonds and indentures; marketing and administrative control of corporate financing, including the provisions of relevant state or federal legislation. Three hours a week.

Professor Latty
Credit Transactions. Consideration of suretyship and guaranty, letters of credit, trust receipts, contracts of accommodation parties on bills and notes, real property and chattel mortgages, pledges, conditional sales. Two hours a week throughout the year.

Professor to be Announced
Debtors' Estates. A comparative study of the various legal devices available for the administration of debtors' estates-compositions, assignments for the benefit of creditors, receiverships and bankruptcy including proceedings for debtors' rehabilitation and corporate reorganization under the Bankruptcy Act. Three hours a week.

Professor to be Announced
Regulation of Business. See Public Law Courses, below, for description. Three hours a week.

Professor to be Announced

## 3. PROPERTY COURSES

Chattel Transactions. The course covers most of the topics generally treated under the heading of Personal Property, Bailment and Sales; application of the concepts of possession and title in the law of personal property: the bailment relationship; artisan's lien; transfer of chattels by gift, sale and miscellaneous inter vivos transactions. Special attention is given to the judicial process and technique. Problems of chattel mortgages, pledges and sales financing are considered only incidentally, being reserved for the course in Credit Transactions. Four hours a week.

Professor Latty
Possessory Estates. Historical introduction to real property with a detailed consideration of the modern law of possessory estates in land, including the fee simple; the fee tail; the life estate; the estate for years, and other nonfreeholds; concurrent ownership; and the incidents of possessory ownership relative to water, lateral and subjacent support, and air. Three hours a week. Professor Bolich
Conveyancing. Form and execution of deeds; description in deeds; easements and profits; licenses; covenants and agreements running with the land at law and in equity; estoppel by deed; recording and title registration. Three hours a week.

Professor Bolich
Future Interests. Future interests in real and personal property; reversions; vested and contingent remainders; executory interests; rights of entry; possibilities of reverter; gifts to classes; powers; perpetuities; construction of wills and deeds as affecting the validity and characteristics of the interests created thereby. Three hours a week.

Professor Bolich
Wills and Administration of Estates. The rationale of succession; mental capacity to make a will; undue influence and fraud; execution of wills; testamentary character and intent; integration of wills; revocation of wills; condition and mistake; revalidation of wills; function and necessity of probate and administration; grant of probate and administration; management, distribution, and settlement of the estate. Three hours a week.

## Professor McDermott

Trusts. See General Courses, page 22, for description. Three hours a week.

Landlord and Tenant. Treatment of certain aspects of the modern law of leases relating to business, residential and agricultural properties, including the nature and characteristics of the lease concept ; creation of leases; possession and use of demised premises; transfer by lessor or lessee; covenants and conditions; rent and security devices; purchase options, renewals and extensions; termination and eviction. Two hours a week.

Professor Bolich

## 4. PUBLIC LAW COURSES

Criminal Law and Its Administration. Survey of criminal procedure and of the lawyer's function in the administration of criminal justice; theories of crime and of punishment in the criminal law; consideration of the criminal act and of the mental element in crime; specific offenses at common law and as developed by statutes; appropriate defenses in relation to the specific crimes. Three hours a week.

Professor Sanders
Constitutional Law. Judicial protection against arbitrary governmental action; the history of the notion of a "higher law"; the concepts applied and the constitutional clauses relied upon; the development and application of particular doctrines protecting from arbitrary governmental action individuals with respect to their persons and individuals and corporations with respect to their property and business activities. The division of fields of control between the federal and the state governments. Two hours a week first semester, three hours a week second semester.

Professor Maggs

Administrative Law. Quasi-legislative and quasi-judicial functions of administrative tribunals, boards and officers. Constitutional limitations, growing out of the doctrine of the separation of powers and the doctrine of the nondelegability of legislative power, upon the creation and allocation of administrative fưnctions. Practice and procedure before administrative tribunals, boards and officers; constitutional limitations upon administrative procedure. Judicial control and review of administrative orders and decisions. Two hours a week.

Professor Maggs
Labor Law. The National Labor Relations Act and related legislation. Federal and state anti-injunction statutes and their background. The law relating to strikes and the conduct of strikers, the labor agreement and the responsibility of unions. Labor problems in wartime. Two hours a week.

Professor Sanders
Labor Law Seminar. Intensive study of special problems. Two hours a week.

Professor Sanders
Legislation. The interpretation of statutes; the subject matter and purpose of the statutes; the context; association words; parts of the statute in relation to the whole; extrinsic aids; statutes in relation to other statutes; statutes in relation to the common law; the applying of statutes; the operation and effect of statutes. Two hours a week.

Professor McDermott
Legislation Seminar. Special study and research with respect to specific legislative problems and projects, involving a complete survey of the nature and mechanics of the legislative process. Legislation is prerequisite. Selected materials. Two hours a week.

Professor McDermott
Regulation of Business. A study of federal and state legislation designed to maintain competitive markets and to regulate competitive practices, followed by a study of certain systems of direct price control imposed by law in certain industries. Consideration will also be given to wartime economic controls and their possible postwar implications. Three hours a week.

Professor to be Announced
Municipal Corporations. The nature of municipal corporations; their external constitution; their internal constitution; their powers; their liabilities ; remedies for and against municipal corporations. Two hours a week

Professor McDermott
Taxation. The principal taxes are considered. Special stress is laid upon the federal tax system and the major federal taxes are analyzed in some detail. The course includes the constitutional law of taxation, both in its broader aspects and in its narrower incidence upon the particular types of taxes. Two hours a week throughout the year.

Professor Lowndes
Seminar in Federal Tax Problems. This course is designed for students desiring advanced work in federal taxation. In addition to a study of the administrative and procedural aspects of the federal tax system, emphasis is laid upon the interrelation of the various federal taxes, tax control, and analysis of some of the more complex provisions of the federal tax statutes. The method of instruction is by group discussions and personal conferences with the instructor. Two hours a week.

Professor Lowndes
Seminar in Practice before Government Agencies. This course is designed for students desiring additional work in the field of Administrative Law. Although emphasis is placed upon the Emergency Price Control Act and the regulations and orders issued thereunder, and special consideration is given to the interpretative and procedural problems involved, these are studied in their broader setting in order to provide the student with an introduction to practice before government agencies generally. The method of instruction includes group discussion, special assignments to individual students, and personal conferences with the instructor. Two hours a week.

Professor Roalfe

## 5. PROCEDURE AND PRACTICE COURSES

Introduction to Procedure. An introductory study of the most commonly used procedural devices by which disputes are brought before the courts for adjustment, and the techniques employed in the judicial process for effecting these adjustments, including the control of the trial court by appellate tribunals. The course will also include a study of modern reforms of pleading in so far as they are pertinent. Three hours a week.

Professor to be Announced
Pleading. Remedial law as applied in code jurisdictions. The form, theory, and classification of civil actions and special proceedings, together with a complete analysis of the several pleadings available in such actions and special proceedings. Three hours a week.

Judge Bryson
Practice. The practical work of lawyers; drafting instruments; preparation of pleadings and trial briefs; the various trial methods and steps taken in the trial of the case; removal of cases from state to federal courts; noting and perfecting appeals; the appeal briefs; procedure in the Supreme Court. Two hours a week throughout the year.

Judge Bryson
Evidence. Admissions in pleadings, and stipulations; burden of proof, and presumptions; judicial notice; parole evidence rule; determination of admissibility of evidence; documentary evidence; witnesses; opinion testimony; the hearsay rule; circumstantial evidence; real evidence; evidence illegally obtained; contracts altering or waiving rules of evidence. Two hours a week throughout the year.

Professor McDermott
Federal Jurisdiction and Procedure. Functioning of federal courts including such topics as original jurisdiction, removal of causes, the statutory court, appellate jurisdiction of the Circuit Courts of Appeal and Supreme Court. Consideration will also be given to the rules of civil procedure for the District Courts of the United States. Two hours a week.

Professor to be Announced
Legal Ethics. A seminar approach to the legal problems of the lawyer and the profession. Readings are assigned in legal biography, law reform, the history of the profession, legal aid work. Class discussions cover canons of ethics, statutes, cases, opinions of grievance committees dealing with the daily problems of the practicing lawyer. A written report is required on some phase of the reform of the administration of justice. Required for graduation. One hour a week.

Professor Bradway
Legal Aid Clinic. During the first semester the objectives of the course are: to give the student experience in actual cases; to develop creative skills, techniques and mental habits; to encourage a sense of responsibility to client, court, profession and community. Students under supervision of staff attorneys and in co-operation with members of the Durham bar, court officials and social and other professional agencies in the community; engage, so far as students may, in the handling of actual cases from the first interview with the client until the final disposition of the problem by litigation or otherwise. Trial briefs are prepared for lawyers in active practice. In the second semester the students continue their work with actual cases and clients. In addition they are given experience in special exercises such as drafting legal documents, dealing with members of other professional groups, conciliation proceedings. Appellate briefs are written for lawyers with active practice. Opportunity is afforded for special work in fields of particular interest. Three hours a week first semester; two hours a week second semester.

Professor Bradway

## 6. LEGAL RESEARCH AND WRITING

Legal Research and Writing. Part I: A historical study of the development of law books with particular emphasis upon the more important sets and classes of volumes; actual practice in the use of the books themselves for the
purpose of developing facility in legal research. Part II: During the second half of the first semester and the first half of the second semester, each student will be required to prepare a series of six to eight memoranda of law. Each memorandum will embody research on a question of law connected with a different one of the student's first-year courses; its subject will be selected by the instructor of the course involved after conference with the student; the research and writing will be under the supervision of that instructor. Part III : Exercises in the form, substance, and technique of brief writing: preparation of sample briefs; moot court arguments based on an earlier brief. Two hours a week throughout the year.

Professor Roalfe, Members of the First-Year Faculty
The foregoing courses as here offered are subject to change.
Upon recommendation of the Committee on Graduate Study, seminars not listed in the bulletin may be created or arrangements made for supervision of special research by individual graduate students in any subject.

All matters presented in this bulletin are subject to change as the University or the School of Law may deem expedient.

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## Duke University School of Law

 Publishes
## Law and Contemporary Problems

Each issue of this publication is devoted to a symposium exploring not only the legal but also the economic and other social-science aspects of current problems that cross the lawyer's desk.

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## Law and Contemporary Problems

Duke Station Durham, N. C.

# BULLETIN OF DUKE UNIVERSITY 

## The Summer Session



1946

First Term: June 27-August 8
Extended Term: August 9-29

PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA

## ANNUAL BULLETINS

For General Bulletin of Duke University, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of Undergraduate Instruction, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forestry', Duke University, Durham, N. C.

For Bulletin of The School of Law, apply to The Dcan of the School of Laze, Duke University, Durham, N. C.

For Bulletin of The School of Medicine, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.

For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

For Bulletin of The Divinity School, apply to The Dean of the Dizinity School, Duke University, Durham, N. C.

For Bulletin of The Summer Session, apply to The Director of the Summer Session, College Station, Durham, N. C.

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## BULLETIN

# OF <br> Duke University 

SUMMER SESSION<br>ANNOUNCEMENT



1946

First Term: June 27 -August 8

Extended Term: August 9-29

DURHAM, NORTH CAROLINA

## SUMMER SESSION ANNOUNCEMENT

## ADMINISTRATIVE OFFICERS

ROBERT LEE FLOWERS, A.M., LL.D., President of Duke University

WILLIAM HANE WANNAMAKER, A.B., A.M., Litt.D., Vice-President of Duke University and Memper of the University Committee on the Sumaier Session

ALFRED SMITH BROWER, A.B., Member of the University Committee on the Sumaer Session

CHARLES BLACKWELL MARKHAM, A.B., A.M., Treasurer of Duke University

HOLLAND HOLTON, A.B., J.D., Director of the Summer Session and Chairman of the University Committee on the Summer Session

ARTHUR MARCUS PROCTOR, A.B., A.M., Ph.D., Associate Director of the Summer Session

WILLIAM THOMAS LAPRADE, A.B., Ph.D., Member of the University Committee on the Summer Session

CALVIN BRYCE HOOVER, A.B., Ph.D., Litt.D.,
Dean of the Graduate School of Arts and Sciences
ALICE MARY BALDWIN, A.B., A.M., Ph.D., Dean of the Woman's College

HERBERT JA.MES HERRING, A.B., A.M., Dean of Trinity College

William holland Hall, A.B., A.M., B.C.E., M.S.C.E., Dean of the College of Engineering

Bennett Harvie Branscomb, A.B., B.A., M.A., Ph.D., Litt.D., Dean of the Divinity School

MARY GRACE WILSON, A.B., Social Director and Acting Dean of Women

## FACULTY

(Practically all the courses are offered by the regular instructional staff of the University. See bulletins on "Undergraduate Instruction" and on the "Graduate School of Arts and Sciences.") visiting members of the faculty offering graduate courses
Baker, H. Leigh ; A.B., Baker University; B.S., Kansas Agricultural College; A.M., Chicago; Ph.D., Yale; Education (Kansas State College).

Castellano, Juan Rodríguez; B.A., Instituto Cardinal Cisneros, Madrid; Licenciado en Filosofía y Letras, Doctor en Filosofía, University of Madrid; Spanish (Vanderbilt University).

Goldthorpe, J. Harold; A.B., Hamline University; A.M., Ph.D., University of Minnesota; Education (Research Staff, American Council on Education).

Gwynn, John Minor; A.B., A.M., University of North Carolina; Ph.D., Yale ; Education (University of North Carolina).

Highsmith, John Henry; A.B., A.M., Duke; Columbia, 1904-06; LL.D., Catawba College; D.Ed., Wake Forest College; Public School Administration (Director of Instructional Service, North Carolina State Department of Public Instruction).

Hillman, James Elgan; B.Ped., Berea College; B.S., A.M., Ph.D., George Peabody College; Education (Director of Professional Service, North Carolina State Department of Public Instruction).
Humm, Harold Judson ; B.S., University of Miami ; A.M., Duke; Duke, 194345 ; Marine Biology (Resident Director at Marine Station at Beaufort).
Porter, Willis Putnam; A.B., A.M., Ph.D., University of Iowa; Education (New York State Teachers College, Oneonta).

Russell, Harry J.; A.B., Brigham Young University; A.M., Ph.D., Ohio State University; Spanish (Miami University).

Smith, Henry Nash; A.B., Southern Methodist University; A.M., Ph.D., Harvard; American Literature (University of Texas).
Wallin, John Edward Wallace; A.B., Augustana College; A.M.. Ph.D., Yale; Educational Psychology (Director of Special Education and Mental Hygiene, Delaware State Department of Public Instruction).

Wilson, Logan ; A.B., Texas ; A.M., Ph.D., Harvard; Sociology (H. Sophie Newcomb College, Tulane University).

## DUKE UNIVERSITY SUMMER SESSION

Duke University, located at Durham, North Carolina, includes Trinity College, the Woman's College, the College of Engineering, the Graduate School of Arts and Sciences, the Divinity School, and the Schools of Law, Medicine, Nursing, and Forestry. The student body is drawn from the entire United States, with a representative group of foreign students. The enrollment in the summer is somewhat smaller than during the regular year, but with a larger representation of graduate students.

In 1945 there was a total registration of 904 in the Duke University Summer Session, excluding military and naval enrollees of Trinity College and the Engineering College and excluding also the enrollments of the Schools of Medicine and Nursing and of Law. Of these registrations, 700 were enrolled the first term, and 204 the second term. There were .397 graduate students the first term and 137 the second. The total enrollment for the summer was drawn from thirty-four states, as well as the District of Columbia, Hawaii, Canada, Cuba, and Norway. The largest enrollments were from North Carolina, Pennsylvania, South Carolina, Florida, West Virginia, Georgia, Virginia, Ohio, and New York in the order named.

## CAMPUS AND BUILDINGS

Duke University is located on two campuses. The East Campus which houses the Woman's College students will be closed for the summer of 1946, in order to make desirable repairs that have accumulated during the war. Certain classrooms on this campus will be available for classes in education and Spanish, and the library will be open morning and afternoon hours. Practically all the activities for 1946, however, will be concentrated on the West Campus. All dormitories, laboratories, classroom buildings, library, auditorium, and administration building are conveniently grouped around the Union, center of student activities, the Government Post Office, and the College Store.

## SCOPE OF WORK

Work is offered with the needs of the following classes of students in mind :

1. Candidates for the Master of Arts (A.M.) and Master of Education (M.Ed.) degrees, particularly teachers, supervisors, and administrators in the public schools who desire to complete degree requirements in a series of summers. (These students should direct their applications to Dr. Calvin B. Hoover, Dean of the Graduate School, Duke University, and have their colleges send transcript of their previous work to him.)
2. Undergraduates already enrolled in the University who are trying to accelerate their graduation. (These students should register for the summer with the same dean with whom they register in the regular term.

On account of crozuded conditions in 1946, undergraduates from other colleges and universities cannot be accepted. High-school graduates other than veterans of the armed services cannot be accepted for the summer session, since the acceptance of all recent high-school graduates is deferred until the term beginning in September.)
3. Students, graduates and undergraduates, desiring to enter under the GI Bill of Rights in the summer and continue into the fall term of the University. (These students should address Mr. J. A. McLean, 209 Administration Building, Duke University, for information as to their veterans' rights. If graduate students, they should address application and credentials to Dean Hoover as above ; if undergraduates, they should address Mr. Herbert J. Herring, Dean of Trinity College, Duke Station, Durham. Undergraduate veterans who are women should address Mrs. Ruth S. Smith, Associate Dean, Woman's College of Duke University, Durham.)
4. Graduate students under the GI Bill of Rights who wish to begin work this summer toward the completion of a Master's degree within a series of summers. (These should address application and credentials to Dean Hoover.)

## CREDITS

Instead of the traditional one-hour courses for six weeks that compel the student to divide his time among three separate classes, the work of the Summer Session is divided into units of three semester hours, each class meeting for eighty-five minutes daily, five days per week for a period of six weeks. No student is permitted to obtain credit for more than two such courses, and no instructor teaches more than two. This means that instructor and student alike are limited to two preparations daily instead of three. The Summer Session also encourages students to take both their courses in one department. Undergraduates particularly are encouraged to take complete units of work within six weeks-that is, six semester hours of freshman English, or of second-year Spanish, or of United States History, etc. There is no exception to the rule that the University allows no credit for six weeks beyond six semester hours.

Professional credits toward teachers' certificates are granted by the various state boards of education, each in accordance with its own carefully planned rules. Teachers should consult the rules laid down by their State Board of Education before enrolling for certification credit. Any student, however, whose work is of such quality as to deny him credit toward a degree, fails to receive "professional" credit.

College credits are offered as follows: A course meeting one hour daily for six weeks counts for two semester hours of credit, and a course meeting eighty-five minutes daily for six weeks counts for three semester hours of credit. The University will not accept credit beyond six semester hours earned in one term toward the Bachelor's degree. Graduate stu-dents-are not under any circumstances permitted to enroll for more than six semester hours in a summer term of six weeks. They forfeit grad-
uate credit by undertaking more than six semester hours of work, even though part of the work may carry undergraduate credit only.

The nature of the credit allowed for each course is indicated by the number of the course. Courses numbered $1-49$ are primarily for Freshmen, or Freshmen and Sophomores; courses numbered 50-99 are ordinarily for Sophomores, or Sophomores and Juniors; courses numbered 100-199 are for Juniors and Seniors; courses numbered from 200-299 are for Seniors and graduates; and courses numbered from 300 up are for graduate students only and are of very limited enrollment. Courses numbered from 200 up are usually limited in enrollment to approximately twenty-five students, and during the summer consist almost entirely of graduate students. Graduate seminars are limited to fifteen students or fewer.

## ADMISSION

1. Former students of the Summer Session who have already been admitted by the Graduate School or by one of the Undergraduate Colleges should send regular application blank to the Director of the Summer Session before or at the time they send their room rent to the Housing Bureau. He is authorized to accept such students, make tentative reservations of the courses they request, and file room admission card with the Housing Bureau.
2. The graduate students now enrolled in Duke University will also apply directly to the Director of Summer Session and follow the same procedure as outlined for former Summer Session students. If they can get from the Director of Graduate Studies in their department advance approval of the courses they request on their Summer Session application blank, it is wise to do so; and the Summer Session will keep a record of this fact for registration day.
3. All prospective graduate students who have not attended Duke Summer Session-teachers, veterans, or others-should apply directly to Dr. Calvin B. Hoover, Dean of Graduate School, Duke University, for graduate school application blank and should have all colleges and universities they have attended send complete transcripts of their undergraduate and previous graduate work. When he has accepted their applications, he will authorize the Housing Bureau to make room assignment (when room rent has been paid) and will send summer school application blank on which student can make tentative reservation of courses with the Director of the Summer Session.
4. Undergraduates now enrolled in the University (or previously enrolled and now returning) should obtain Summer Session application blank from the office of the appropriate dean (Mr. Herring or Mrs. Smith) and have the dean approve their courses (or approve their applications subject to later arrangement of courses) and send student admission card to the Housing Bureau, which will make general room reservation upon payment of room rent.
5. All prospective undergraduate students planning to enter the Summer Session-whether veterans or not-and to continue into the fall semes-
ter should apply to Mr. Herbert J. Herring. Dean of Trinity College, Duke Station, Durham, N. C.. for admission to college and for Summer Session application blank, which should be returned to him in order that the same procedure as indicated in paragraph four may be followed.
6. Teachers and administrators in the public schools who do not plan to work toward a graduate degree but wish for certification purposes graduate courses which they are qualified to enter may apply directly to the Director of the Summer Session. In their case the procedure indicated in paragraph one above will be followed. Since each of such cases is landled on its individual merits and only a limited number can be accepted, it is important that application be made very promptly.

In all cases transcripts and applications should be in the hand of the appropriate dean at least fifteen days before the opening of the term in which the student desires to enroll. The Summer Session reserves the right to reject an application or cancel any registration without assignment of reason.

## ROOMS

When a student has been accepted by the Director of the Summer Session (in the case of former summer students) or by Dean Hoover or the proper undergraduate dean, he should send room rent in full (which will he refunded upon request made before June 15) to Mr . W. E. Whitford, Housing Bureau, Duke University, as reservation for room for six or nine weeks. In the men's dormitories there is a special rate for room rent for six weeks of $\$ 17.50$ with roommate, or $\$ 22.50$ for single rooms. For nine weeks the rates are $\$ 26.25$ and $\$ 33.75$. In women's dormitories the rate is one dollar more for six weeks or a dollar and a half more for mine weeks, in order to care for extra services. The woman's dormitory on West Campus cannot accommodate more than three hundred persons, and fersons applying late will probably be crowded out. Room assignments will be made May 15, but students will be notified as to the fact of having a general reservation when room rent has been paid and they have been accepted by the proper dean. The number of single rooms available is very small.

Rooms rented from the University are not available until 2:00 P.M., Wednesday, June 26, the day before registration. Students arriving prior to that hour are expected to make temporary arrangements at the hotel or elsewhere.

Room assignments are made with the understanding that the student is expected to vacate the room within twenty-four hours after his last examination begins. If his last examination begins at 8:00 A.M., Wednesday, he is expected to vacate the room by 8:00 A.M., Thursday, etc. In cases where the enforcement of this rule works hardships temporary arrangements can usually be made if the Housing Bureau is notified one week in advance.

Occupants of University rooms furnish their own bed linen, blanket, pillows, and towels. All other essentials are supplied by the University.

For the summer of 1946 there is no dormitory available for married

## Duke University

students whose wives accompany them. Housing conditions in town are such that students who wish to enter in the summer and continue through the next academic year are advised to reserve room in the dormitory for themselves and look for quarters during the summer to which to bring their families in the fall. The area is under rent ceilings, and housing conditions may be better by summer; but the local rental agencies frankly have nothing to offer at the present time.

## BOARD

Board will be provided in the University dining rooms, at about fifty dollars for six weeks. The University is attempting to install cafeteria service in time for the Summer Session. If installation is unavoidably delayed, the cafeteria plate-service of previous summers will be provided.

## CALENDAR AND REGISTRATION

The main term of Summer Session will open June 27 and close August 8. An extended term of three weeks will open August 9 and close August 29. All Mondays except July 1, August 5, and August 26 are holidays. July 4 will be observed as Independence Day.

June 27 is registration day. All students should be present some time ketween 9:00 A.M. and 12:30 P.M. or 2:00 and 5:00 P.M. to submit their credentials for admission, select courses, and make arrangements concerning board and lodging, for either six or nine weeks according to their plans. Students arriving after 5:00 P.M. Thursday will register the next morning at $8: 30$. Regular classes will begin Friday morning at $8: 00$. Students will find schedule posted on the bulletin board prior to registration.

For the extended term, Thursday, August 8, 9:00 A.M. and 2:00 P.M., is registration day; but students who wait to register at this time instead of registering in full June 27 may find themselves crowded out of certain courses.

All graduate students seeking credit to be applied toward an advanced degree at Duke University or elsewhere not only must file applications and transcripts with the Graduate School of Arts and Sciences at the time of their first registration, but they are required to register in the Graduate School at the beginning of each term of their residence at Duke University. This registration is in addition to any advance registration in the Summer Session Office. When reporting for registration in the Graduate School, students should bring with them course cards endorsed by the Director of Graduate Studies in their major department. Any one registering in the Graduate School after the close of the Summer Session registration period will be charged a late registration fee of five dollars.

Students who register late are regarded as absent from all classes held prior to their registration. Late entrance seriously affects credits.

## ADVANCE REGISTRATION FOR COURSES

Every student working toward a degree must register personally in the office of the Dean of the Graduate School or the appropriate under-
graduate dean. Representatives of the department of instruction are available on registration day to confer with students desiring to take courses in their departments. It is, therefore, important for all degree students to be present on registration day to be sure they are properly registered in the dean's office. Since, however, graduate courses are of limited enrollment, the Director of the Summer Session undertakes to receive advance applications for courses and record them for the various graduate departments. These lists of students are given to the various departments the morning of registration. If a student has requested that his name be placed on the list for a certain course, he has only to convince the representative of the department that he has the necessary prerequisites in order to obtain a place in the course. If his name is not on the advance list, he gets the same consideration, provided the full number of students allowed in the class is not already on the list. In other words, the student who writes in advance is tentatively enrolled in the class, and he can hold this place against persons who apply later. If he does not complete his registration, however, before the close of registration, he has no right to hold the place longer.

## EXAMINATIONS

The last two days of each term of six weeks are devoted to examinations. The University has no provision for giving examinations in absentia, but students absent from examination for valid reason are permitted a liberal extension of time in which to return to the University for completion of credit.

## SCHEDULE OF EXAMINATIONS FOR THE MASTER OF EDUCATION DEGREE

Examinations for the Master of Education degree will be held as follows:

Thursday, June 27 (registration day), 8:00 A.M.-12:00 M., Room 2D, West Duke Building, examination upon the professional major. (Only students who have completed all courses for their professional major are eligible to stand this examination. Another opportunity will be given Saturday, August 10, 8:00 A.M.-12:00 M., for students who complete their major the main term this summer.)

Friday, June 28, 2:00-5:00 P.M., Room 2D, West Duke Building, examination upon the student's minor. (If the student has two minors, as recommended for majors in secondary education, he should arrange to take examination upon one minor $8: 00-11: 00$ A.M. on the same day. Another opportunity to take the minor examination is offered Thursday, August 8, 2:00-5:00 P.M. The minor examination is not required of any student who has passed the qualifying examination listed below and required under the new regulations that went into effect June 1, 1945. Students who entered prior to that date are permitted to substitute the qualifying examination for the minor with the approval of the Director of Graduate Studies in Education.)

Monday, July 8, 8:00 A.M.-12:00 M., Room 2D, West Duke Building, the qualifying examination for the Master of Education degree, required since June 1, 1945, of all students desiring to enter candidacy for that degree (see Master of Education degree, page 13, this bulletin).

Friday, August 9, 8:00-11:00 A.M. and 2:15-4:45 P.M., examination upon the four basic courses. (Only those who have completed all four required courses by the end of the main term are eligible for the examination at this time. This examination will also be given Wednesday, August 28, 2:00-5:00 P.M. and 7:00-9:30 P.M., for those completing their last basic course in the extended term.)
Arrangements for any of these examinations should be made by giving notice to Dr. D. E. Scates, secretary of the examining committee, 1B West Duke Building, at least two weeks before the date set for the examination desired.* No fee is required at the time any examination is taken, but at the time of graduation the student pays a flat fee of $\$ 25.00$, equivalent to the thesis fee required of other Master's candidates.

## GRADUATE INSTRUCTION IN THE SUMMER SESSION admission to graduate courses

A student who has received the A.B. or B.S. degree from an institution of recognized standing for a four-year undergraduate course may be admitted to take courses, for which his record indicates preparation, in the Graduate School of Arts and Sciences of Duke University, provided his undergraduate record gives positive evidence of ability to undertake graduate study successfully. An average grade of not less than " $B$ " is ordinarily accepted as evidence of such ability.

Applicants for admission are encouraged, and may be required, to take the Graduate Record Examination administered by the Graduate Record Office, 437 West 59th Street, New York City, which, on application, will suggest a convenient examination center. The scores made on this examination will be welcomed as an especially desirable credential. Students who take the Graduate Record Examination must make their arrangements directly with the Graduate Record Office, which charges a nominal fee of five dollars.

A candidate for admission to graduate courses should ask the proper officer of the college(s) he attended to send directly to the Dean of the Graduate School an official transcript of his undergraduate record. An advanced student should provide also a transcript of the graduate work compieted by him. Students who have attended more than one college or university should note that certification by one institution of work completed at another institution cannot be accepted. In no case will a transcript presented by the candidate himself be accepted as a basis for admission, nor will a transcript mailed by any institution be returned to

[^20]the student. An application blank for admission will be provided upon request to the Dean of the Graduate School. The transcript and application should be submitted to the Graduate School at least fifteen days before the applicant proposes to enter courses; otherwise he may have to register only tentatively and as an unclassified student.

## ADVANCED DEGREES

The degrees offered in the Graduate School of Arts and Sciences are Master of Arts (A.M.), Master of Education (M.Ed.), and Doctor of Philosophy (Pli.D.). Most of the departments of the University are now prepared to give a full program of work leading to the degree of Doctor of Philosophy.

## ADMISSION TO THE GRADUATE SCHOOL

After twelve semester hours of graduate work, the student may apply for admission to the Graduate School, and thus become a candidate for the Master's degree. Such admission is dependent upon the fulfillment of two conditions. (1) The student must have made a mark of "G," or "Good," in at least three semester hours of work, with no mark less than "S." Candidates who cannot meet this condition may at a later time submit their records for re-evaluation, provided that in their subsequent work they shall have made a substantial number of "G's."* (2) The student in his undergraduate work must meet substantially the requirements for the A.B. or B.S. degree at Duke University. $\dagger$ Any deficiencies of undergraduate work must be satisfied before admission to the Graduate School. Graduate courses taken at Duke University prior to formal admission to the Graduate School will count toward a higher degree provided they are in accord with its requirements and are acceptable to the major department. A graduate student may be requested to withdraw from the University at the discretion of the Dean of the Graduate School.

## DEGREE OF MASTER OF ARTS

## Language Requirements:

Candidates for the degree of Master of Arts are required to have a reading knowledge of a foreign language evidenced by examination or by transcript showing the completion of the third college year of the language, or to have a reading knowledge of French and German evidenced by transcript showing the completion of second-year college French and German.

## Major and Minor Subjects:

As a prerequisite to graduate study in his major subject, a student must have completed a minimum of twelve semester hours of approved preliminary courses in that department and twelve additional semester hours either in that department or in related work. Many departments

[^21]require eighteen semester hours of undergraduate credit. The student, therefore, should read carefully the special requirements listed by each department.

To obtain the degree of Master of Arts, a candidate must complete satisfactorily twenty-four semester hours of graduate courses and a thesis. (The student who takes more than fifteen semester hours of work in the Summer Session must complete a total of twenty-seven hours of course work and a thesis.) The credit for the thesis is six semester hours. Each candidate for the degree must select a major subject, in which the minimum requirement is twelve semester hours and a thesis. A candidate must take six semester hours of graduate work in a minor outside of but approved by the major department, and the remaining six semester hours in the major or minor fields or in a department approved by the major department and by the Graduate School Council. No undergraduate course may be credited toward the degree of Master of Arts.

## Residence Requirements:

The minimum residence requirement of candidates for the Master's degree is one academic year. Often a longer period of residence will prove necessary. Those students who take more than fifteen semester hours of courses in the Summer Session must fulfill a minimum residence requirement of thirty-three weeks.

Not more than six semester hours of credit toward the Master's degree may be given to graduates of Duke University or of other colleges or universities for acceptable graduate courses or research work completed elsewhere. Such credit does not shorten the minimum period of full-time residence work required at Duke University. However, with the approval of the student's major department and the Dean of the Graduate School, the student with such credit may be permitted to take six semester hours of required undergraduate training, six semester hours of a required language, or to register for nine or twelve hours of thesis research instead of the usual six semester hours. No credit toward advanced degrees is given for university extension or correspondence courses.

All the work offered for the Master's degree, whether in the regular academic year or in summer session, must be completed within a period of six years from the date of beginning.

## Thesis:

The title of the thesis required in partial fulfillment of the requirements for the degree of Master of Arts or Master of Education must be filed with the Dean of the Graduate School on or before June 15 of the summer in which it is expected that the degree will be conferred. The subject must receive the written approval of the Director of Graduate Studies of the department in which the candidate has his major field of work and also of the professor under whom the thesis is being written.

Four (or, at the discretion of the department, three) bound typewritten copies of each thesis must be submitted to the Dean of the Graduate School in approved form at least one week before the date proposed
for the thesis examination described. All copies of the thesis should be brought to the Graduate Office before distribution to the examining conmittee. The examining committee is composed of three members of the Graduate Faculty appointed by the Dean of the Graduate School after consultation with the professor directing the thesis. Two copies of the approved thesis, the original and one carbon copy, are endorsed by the examining committee and returned to the Dean of the Graduate School, who deposits them in the University Library.

## Examination:

Each candidate for the Master's degree is required to appear before the committee mentioned above for a final examination, which will approximate one and one-half hours in length and will be on the thesis and major field.

## DEGREE OF MASTER OF EDUCATION

The degree of Master of Education is granted to teachers or others engaged in educational service, upon the completion of the prescribed program of study. Candidates for the degree must have had two years of practical experience in teaching when the degree is conferred. This experience may be obtained at any time prior to entering upon candidacy for the degree, or it may be obtained concurrently with the period of study for the degree.

A preliminary requirement for admission to graduate study for this degree is the completion of a minimum of eighteen semester hours of atpproved undergraduate work in education, including courses in educational psychology and in the history of education, or educational sociology. or school administration. In addition, before being accepted as candidates for the degree, students must early in their residence (1) make a satisfactory score on a test of general ability and (2) demonstrate by examination that they can write acceptable English.

The degree of Master of Elucation may be earned either with or without a thesis.

## Requirements without Thesis:

Students who elect not to write a thesis must earn thirty hours of course credit (thirty-three in the Summer Session). Twelve of these hours must be secured from the four basic required courses, Education 300, 304, 305, and 317. Besides taking these courses in the usual manner, students must also, toward the end of their residence, pass a comprehensive examination on the content and interrelationships among these four courses. Approval by the Director of Graduate Studies in Education is required before students are permitted to take the comprehensive examination. On this account notice of intention to take the comprehensive examination should be filed with the Director of Graduate Studies three weeks before the announced date of the examination.

Exemption from not more than two of the four basic courses will be allowed students who can by examination show that they already possess adequate knowledge of the subject matter area or areas involved. Such students must, however, substitute other courses for those from which they
are excused, thus still earning the minimum of thirty (or thirty-three) hours of course credit.

Other requirements: a departmental major of at least twelve hours, and an extradepartmental minor of at least six hours. (Educational psychology may count in the minor when the major is elementary education or public school supervision.) Toward the end of their residence students must stand a comprehensive examination on their departmental major.

## Requirements with Thesis:

Students are permitted to substitute a thesis for six hours of course credit, provided (1) that in the first fifteen hours of their work (twelve, in the Summer Session) they earn a " $G$ " record on at least six hours, and (2) that they can present a thesis subject which has been approved by the member of the staff in Education who will supervise the thesis as well as by two other members of the staff. (Two of the three faculty members approving the subject must be resident members of the staff in Education.)

Besides the thesis, students must earn twenty-four hours of course credit (twenty-seven in the Summer Session). Six of these hours must be earned by taking any two of the basic courses. Education 300, 304, 305. and 317. (Thesis students are exempted from the comprehensive examination which is required of non-thesis candidates.) Of the remaining eighteen hours (twenty-one in the Summer Session), six hours must be taken in some department other than Education. The other twelve (or fifteen) hours are taken in the departmental major. All other requirements, such as those relating to residence, preparation of thesis, thesis examination, etc., are the same as for the degree of Master of Arts.

## DEGREE OF DOCTOR OF PHILOSOPHY

## The Degree:

The degree of Doctor of Philosophy is a research degree; it is not based merely upon the completion of a prescribed period of study or upon the obtaining of credit for a given number of courses. The granting of the degree will be based primarily upon evidence of high attainments in a special field of knowledge and upon the production of a thesis embodying the results of original research.

A student who plans to enter upon a program of work leading to the degree of Doctor of Philosophy should consult or enter into correspondence with the Dean of the Graduate School or the Chairman or Director of Graduate Studies of the department concerned. He will then be advised as to the possibility of securing the necessary instruction and supervision of research in the desired field.

## Residence:

The normal period of resident graduate study is not less than three academic years. The candidate must spend at least either the last year in actual residence at Duke University, or the first two years. A substantial amount of course work in addition to the thesis will be required.

A student whose undergraduate work is insufficient in amount or unsatisfactory in character may expect to spend additional time in preliminary courses essential as a basis for the graduate work he proposes to undertake.

Credit for one year of work done in summer sessions may be given with the approval of the Graduate School Council and the department in which the student takes his major work. Except in unusual cases, graduate work of fragmentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence. The student should consult the bulletin of the Graduate School for a full statement of requirements for the degree of Doctor of Philosophy.

## THESIS WRITING IN SUMMER SESSION

Since Duke University grants no Master of Arts* degree except upon completion of a satisfactory thesis, every candidate for that degree who expects to complete his work in the Summer Session should as soon as possible after completing his first term of residence choose a field in which he desires to write a thesis and confer with some instructor offering graduate courses in that field. The following points should be kept clearly in mind when arrangements are made for thesis supervision:

1. The thesis subject, which must be approved by the instructor who undertakes supervision and by the Director of Graduate Studies of the student's major department, is filed in the Graduate School Office on the blank regularly provided for that purpose. If the instructor believes that a topic proposed by a student is unsuitable, or that the student is not prepared to develop it, or that the instructor is not prepared to supervise it, his decision is final.
2. A student may enroll for six semester hours of residence credit towards a thesis or for less, in one term of six weeks. If he enrolls for only three semester hours he may enroll also for a course of three semester hours, but he cannot enroll for a total of more than six semester hours of credit, including residence toward his thesis. Completion of six semester hours of residence toward his thesis does not guarantee the satisfactory completion of the thesis, which must be acceptable to the instructor supervising it and to a committee representing the Council on Graduate Instruction. Students who do not complete their theses the first term they register for supervision have the privilege of registering a second term upon payment of regular dues, but are not required to do so. Since the numbers permitted to enroll in thesis seminars are strictly limited, such students are not permitted to register for a third term of supervision.
3. A student may either enroll in a specifically designated "thesis" course or, if his preparation meets the approval of the instructor in charge, attach himself to some regularly offered course in his field of study and report periodically to the instructor offering the course.

[^22]4. A student enrolling for thesis residence credit in regular course fays the same fees as other students during the summer of residence. At the time of graduation he pays the same diploma and commencement fees as other students and a thesis supervision fee of $\$ 25$.*
5. Students enrolling for thesis supervision during the Summer Session are expected to complete their theses largely during the summer of enrollment or some subsequent summer term. The instructor with whom they enroll is not under obligation to give active supervision during the academic year, although instructors are willing to give a reasonable amount of attention theses practically completed. Similarly, instructors in Duke University who are not teaching in the Summer Session are not expected to undertake the supervision of theses written by summer school students.
6. Students enrolled for thesis supervision in the first summer term who expect to receive their thesis examination during that term should submit the bound copies of their theses to the Graduate School Office at least ten days before the end of the term. They may then be distributed by the examining committee. Failure to complete the thesis by that time may require deferment of the examination until the following term, because of congestion of examinations set for the close of a term. Those who work on their theses during the second summer term must complete their theses and submit the bound copies to the Graduate Office at least ten days before the conclusion of the term if they wish to receive their diplomas in September. Students who fail to complete their theses by the conclusion of the second term must plan to take the final examination either in the following summer or in the following academic year. It is the policy of the University not to give examinations to candidates for the advanced degrees during the time between the Summer Session and the academic year.
7. Students of the academic year who do not complete theses begun prior to the Summer Session are not accepted for Summer Session enrollment unless their subjects are in the field of some thesis seminar or other course offered by an instructor who recommends that such students be assigned to his supervision during the summer. Instructors who are employed for full time by the Summer Session are specifically requested not to carry over into the summer thesis students whose subjects are not properly a part of work such instructors are offering in the Summer Session.

## FEES AN゚D EXPENSES

Teachers in active full-time service in schools and colleges are exempt from tuition fees for as many as four terms of six weeks in a period of six years. After their fourth term they pay regular tuition charges. All cther students are charged a tuition fee of $\$ 8.00$ for each college credit hour, or $\$ 4.00$ for each semester hour, maximum tuition being $\$ 24.00$ for six weeks, or $\$ 32.00$ for courses running eight weeks. All students, teach-

[^23]ers included, pay a registration fee of $\$ 20.00$ per term. Students in the sciences pay the laboratory fees required in regular term, and students completing degrees pay the regular commencement charges (\$8.00) at the time of receiving their degrees, besides the thesis supervision or M.Ed. examination fee of $\$ 25.00$ required of persons completing Master's degrees.

Major expenses are estimated as follows for six weeks:

| Registration | . $\$ 20.00$ |
| :---: | :---: |
| Room-rent | 18.50 |
| Board | 50.00 |
| Total major expenses to teachers | \$88.50 |
| Tuition required of other students | 24.00 |

In the men's dormitories, as has been stated, the charge for rooms is one dollar less, making the total major expenses for occupants $\$ 87.50$. To these totals should be added about $\$ 7.00$ for books, probably $\$ 3.00$ for miscellaneous expenditures, and laboratory fees for any science course the student may elect. (For laboratory fees, see description of courses in this announcement.)

Fees and expenses for the extended term beginning August 9 are exactly half as much as those estimated for six weeks.

## SUMMER SESSION OPPORTUNITIES FOR GRADUATE STUDENTS

A majority of the students in the Summer Session are graduates of standard colleges, most of them supervisory officials and teachers in the public schools. Departments of instruction, therefore, offering courses related to the common secondary-school curriculum have built up regular sequences of graduate work continuing through a series of summer terms in which graduate students may enroll with reasonable assurance that sufficient work will be offered to enable a properly qualified student to complete Master's requirements easily within the period permitted by the University. Departments in which sufficient demand for graduate courses has developed to enable students to complete Master's degrees are Botany, Economics, Education, English, History, Mathematics, Political Science, Religion, Sociology, Spanish, and Zoology. It is intended to add complete sequences in other departments as rapidly as demand justifies. The Divinity School offers work toward the B.D. and other advanced degrees. In the Department of Education complete sequences of work for the Master's degree are offered in the divisions of public school administration, public school supervision, secondary education, educational psychology, and elementary school education. This variety of offerings should cause students in this department to be especially careful to select a unified course.

In all departments a graduate student must select his minor with the approval of his major department. Under "Courses of Instruction," pages 19-36, this bulletin, specific regulations and suggestions of departments are given. It is important for all degree candidates to choose
their courses according to some unified plan. Mere accumulation of more or less unrelated credits in various divisions of a department with a minor in some department only remotely related to the student's major work will not be accepted as meeting requirements for a graduate degree. Students are advised to choose their first term's work along the line of their major interest and then each succeeding term exercise increasing care in advising with their major professor and the Dean of the Graduate School as to properly related work.

## APPOINTMENTS BUREAU

A Teachers' Appointments Bureau is maintained in Room 113, Administration Building, West Campus, for the benefit of teachers desiring a change of position. There is no charge for this service.

## RELIGIOUS SERVICES

University religious services are held each Sunday morning at eleven o'clock, to which all students are invited. They are also invited to the student choir, a voluntary organization that many students find especially enjoyable.

## "SCHOOL OF SPANISH STUDIES"

The "School of Spanish Studies" that the University has operated the past five summers will be suspended for 1946 because of closing the East Campus for repairs accumulated during the war. Work in Spanish, however, both graduate and undergraduate will be offered for all interested students. It is planned in the summer of 1947 to resume the distinctive features of the Spanish School. The Southgate Building on East Campus with separate dining room and other facilities for a segregated social program will probably be the regular home of the "School."

## INSTITUTE FOR TEACHERS OF SECONDARY MATHEMATICS AUGUST 8-17

The Institute for Teachers of Secondary Mathematics will hold its annual summer session from August 8-17. There will be morning, afternoon, and evening meetings each day during the Institute. The Summer Session is providing special lectures to emphasize the better teaching of mathematics and phases of application especially interesting to students at the present time. Registration will be $\$ 3.00$. Those who desire can get room and board in the University at the rate of $\$ 2.00$ per day with two in a room, and $\$ 2.50$ per day for a single room. A complete program will be sent upon request after April 20. For further information, write the Director of the Summer Session or Professor W. W. Rankin, Director of the Mathematics Institute, College Station.

## COURSES OF INSTRUCTION*

## EXPLANATIONS AND ABBREVIATIONS

Classes meet daily five times per week for six weeks unless otherwise indicated. Classes that meet for sixty-minute periods are indicated as carrying two semester hours of credit. Classes meeting eighty-five-minute periods daily count for three semester hours except where credits are stated otherwise. Courses are arranged alphabetically by departments. The course numbers are the same numbers used in describing courses in the regular term, with the letter "S" preceding; for example, English S1 would correspond to English 1 of the the regular term.

Certain abbreviations occur; for example, $A$ means that the course comes the first eighty-five minutes daily, beginning at $8: 00 ; B$ means that the course comes at the eighty-five-minute period beginning at $9: 40 ; C$ means that the course comes at the eighty-five-minute period beginning at $11: 20 ; D$ means that the course comes at the eighty-five-minute period beginning at $2: 15$. Unless stated to the contrary all classes are scheduled for the West Campus. For complete schedule of rooms and courses, students should consult official bulletin boards at time of registration.
N.B.-Different State Departments of Education grant professional credit for various courses in accordance with their own carefully defined rules. Every student should inquire carefully at or before registration as to what professional credit is allowed for each course in his state.

## MINIMUM ENROLLMENT REQUIRED FOR COURSES

Many courses are offered in spite of small enrollment. The University, however, reserves the right to withdraw undergraduate courses in which fewer than twelve students enroll, graduate courses numbered 200299 in which fewer than ten students enroll, and graduate seminars numtered 300 or above in which fewer than six students enroll. If courses are withdrawn, the University attempts to avoid undue hardship for students enrolled toward degrees that they could possibly complete the current summer.

$$
\begin{gathered}
\text { BOTANY } \dagger \\
\text { PROFESSOR HUGO L. BLOMQUIST, CHAIRMAN- } 203 \text { BIOLOGY BUILDING; PROFESSOR } \\
\text { FREDERICK A. WOLFE, DIRECTOR OF GRADUATE STUDIES- } 315 \text { BIOLOGY BUILDING }
\end{gathered}
$$

For admission to candidacy for the Master's degree in Botany, students must have completed a minimum of eighteen semester hours of biological science, including six semester hours of botany in courses numbered above one hundred. Students, who have not yet had the minimum eighteen hours, how-

[^24]ever, may enter higher courses by permission of the instructor, if he is convinced that they can carry the work for undergraduate credit, and may count such work toward the eighteen hours necessary for candidacy.

S2. General Botany.-A survey of the plant kingdom with emphasis on reproduction, the fundamental principles of inheritance, and an introduction to identification. Lectures, quizzes, and laboratory, half schedule daily, June $27-$ August 8. 4 s.h. (Laboratory fee, \$2.50.)

S160. Marine Botany.--June 26-July 16. 3 s.h. (Laboratory fee, $\$ 3.00$.) Offered at Duke Marine Laboratory, Beaufort, N. C. Mr. Humm

S211. Structure and Classification of Algae.-The life histories of algae, with emphasis upon marine types, their morphological and ecological characteristics, principles of classification, and economic applications. Collecting, identification, and preservation for herbarium and morphological study. July $17-$ August 27. 6 s.h. (Laboratory fee, $\$ 6.00$.) Offered at Duke Marine Laboratory, Beaufort, N. C.

S225. Special Problems.-Hours to be arranged. (Laboratory fee, $\$ 1.00$ per credit hour.) Offered at Duke Marine Laboratory, Beaufort, N. C.

Mr. Blomquist

- Mr. Humm
(Write for special announcement of problem and research courses offered at Beaufort.)


## CHEMISTRY

PROFESSOR PAUL M. GROSS, CHAIRMAN- 219 Chemistry building
S2. General Inorganic Chemistry.-Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. Prerequisite: Chemistry S1. Four one-hour lectures, eight recitations, and four three-hour laboratory periods weekly, June 28-July 25. 4 s.h. (Laboratory fee, $\$ 7.00$.)

S61. Qualitative Analysis.-A study of the reactions of acids, bases, and salts in solution as applied to the qualitative analysis of mixtures of inorganic compounds of the more familiar elements. Four lectures, four recitations, and eight three-hour laboratory periods weekly, July 26-August 22. 4 s.h. (Laboratory fee, $\$ 7.00$.)

S151. Organic Chemistry.-An introduction to the study of carbon compounds. Compounds of aliphatic series form the basis of lectures, discussions, and laboratory experiments. Prerequisites: courses S 61 and S 70 , except by permission of the instructor. Eight lectures, four recitations, and four threehour laboratory periods weekly, June 28-July 25. 4 s.h. (Laboratory fee, $\$ 8.50$.)

S152. Organic Chemistry.-A study is made of compounds of the aromatic series, and of carbohydrates and proteins. Prerequisite: course S151. Eight lectures, four recitations, and four three-hour laboratory periods zeeekly, July $26-$ August 22. 4 s.h. (Laboratory fee, $\$ 8.50$.)

## ECONOMICS

PROFESSOR CALVIN B. HOOVER, CHAIRMAN-103 ADMINISTRATION BUILDING; PROFESSOR JOSEPH J. SPENGLER, DIRECTOR OF GRADUATE STUDIES105 DIVINITY SCHOOL
For admission to candidacy for the Master of Arts degree in Economics, the student must meet the general requirements for admission to the Graduate School and must have had twelve semester hours in Economics, including Principles of Economics. Twelve additional semester hours must be offered in Political Science, Sociology, or History.

Every candidate for a Master's degree must elect six semester hours of graduate work in Economic Theory. The other twelve hours in Economics should be elected as follows: six hours in the field in which he writes his Master's thesis and three hours in each of the two other fields. For purposes of concentration, the fields in addition to Economic Theory shall be Finance, Economic History, History of Economic Thought, and Social Economics. The minor of six semester hours must be taken in Political Science, Sociology, or History, or in some other department approved by the major department.

S51. Principles of Economics.-A short course in the essential principles of economic science. (This course will not count as a part of the minimum economics requirements for graduation until the equivalent of S52 has been completed. It will, however, count as elective credit.) Full schedule daily', Junc 28-July 18. 3 s.h.

S52. Principles of Economics.-A continuation of Economics S51, with emphasis on economic problems. 3 s.h. (This course will probably be offered both Junc 27-August 8 and August 9-29; also full schedule daily, July 19August 8.)

S57-S58. Principles of Accounting.-Elementary principles of single proprietorship, partnership, and corporation accounting. 6 s.h. (Students who have completed S57 may obtain S58 the first three weeks, followed by S171 the next three weeks and S172, August 9-29. Other students may take S58 as a half course June 27 -August 8 or full time, August 9-29. S57 will not be offered until fall.)

S105. Industrial Management.-A study of the organization and management of industrial production, with emphasis upon the principles governing location and plant design, the planning and control of materials and methods, and general price policies. 3 s.h.

S138. Business Statistics.-A course in elementary statistics designed principally for students of economics and business administration. The course deals with collection of statistical data, construction of statistical tables and charts, and a brief study of the fundamental statistical techniques. Full schedule daily, August 9-29. 3 s.h.

S143. Corporation Finance.-Principles and problems in the financial organization of corporations; the study of corporate securities, the management of capital, the distribution of earnings; industrial combinations; insolvency and reorganization. 3 s.h.

S153. Money, Credit, and Banking.-A study of the nature, characteristics, and functions of money, credit, and the commercial banking system; the history of commercial banking in the United States; the foundation, organization, and functions of the Federal Reserve System; the supervision and control of commercial banks; deposit insurance; and the value of money. Full schedule daily, August 9-29. 3 s.h.

S171-172. Advanced Accounting.-Advanced accounting theory and practice applied to the managerial problems of valuation and operation in corporations, consolidations, mergers, and liquidations. Open to students who have completed Accounting 57-58. 6 s.h.
(Students who have completed S171 should apply for S172 only, August 9-29. S171 will be given as a half course June 27 -August 8 and also as a full course July 18-August 8.)

S181. Business Law: Contracts, etc.-The fundamental principles of law as applied to common business transactions. A, June 27 -August 8. 3 s.h.

S182. Business Law: Partnerships, etc.-A continuation of S181, dealing with agency, bailment, sales, negotiable instruments, partnerships, and bankruptcy. $A, C$, August $9-29.3$ s.h.

S236. Public Finance.-This course deals with public expenditures, public revenue, public debts, and financial administration. D, June 27 -August 8. 3 s.h.

Mr. Welfling
S265. International Trade and Finance.-A study of the fundamental principles of international trade and foreign exchange. Subjects covered will include international specialization, balance of payments, foreign investments, tariffs and commercial policies, exchange control, exchange rates, and international monetary problems. B, Junc 27 -Augusi 8. 3 s.h.

Mr. Allen
Note.-An additional course on the graduate level will be offered, August $9-29$, if sufficient demand develops before July 1.

## EDUCATION

PROFESSOR HOLLAND HOLTON, CHAIRMAN-2A WEST DUKE BUILDING; PROFESSOR VIILLIAM A. BROWNELL, DIRECTOR OF GRADUATE STUDIES-

## 1c west duke building

For admission to candidacy for the Master of Arts (A.M.) degree with major in Education, or for the Master of Education (M.Ed.) degree, students must, in addition to meeting the general requirements for admission to the Graduate School, meet the following specific requirements: 1. Eighteen semester hours of acceptable prior work in Education. 2. Twelve semester hours acceptable prior work in a minor field (Exceptions: if Psychology, Sociology, Economics, or Political Science is offered for the minor, six semester hours of work completed after entering the junior year in college will be accepted).

Graduate courses in the Department are grouped under the following subdivisions: Public School Administration, Public School Supervision, Secondary Education, Elementary School Education, and Educational Psychology. Every candidate for the Master of Arts degree in the Department should elect at least twelve semester hours in one of these fields in which he intends to write his thesis and the remainder of his work, including the six semester hours in his minor, with the approval of the proper division adviser. Dr. Proctor is adviser to students in School Administration; Dr. Proctor, Dr. Carr, and Dr. Scates advise majors in Supervision; Dr. Carr is adviser in Elementary Education; Professor Childs advises in Secondary Education; and Dr. Brownell and Dr. Scates advise in Educational Psychology. Candidates for the M.Ed. degree under the new requirements should read with special care the regulations of the Graduate School as set forth on pages 13-14, this bulletin.

## PUBLIC SCHOOL ADMINISTRATION (GRADUATE COURSES)

(Master's candidates in this division elect their minor work in Political Science, Economics, or Sociology. Candidates for the Master of Education must take fifteen semester hours of work from the courses specifically listed or accepted under this division.)

S234. Secondary School Organization and Administration.-A study of the outstanding problems of secondary school organization and administration other than problems of graduation and classification of pupils. (For these two problems, see course S273 listed under Supervision.) C, Junc 27 -August 8. 3 s.h. Mr. Highsmith
S323. Public School Finance.-A study of educational costs, sources of revenue for the support of public education, collection of revenue, basis of distribution, and accounting for funds spent. A. Junc 27 -August 8. 3 s.h.

Mr. Proctor
S343. State and County School Administration.-A study of the state and county organization of public schools, emphasizing underlying principles. $B$, June 27-August 8. 3 s.h.

S363. City School Organization and Administration.-Problems confronting the administrative officer in local schools, such as relations of superintendent with board and public, organization of schools, development of curricula, selec-


## PUBLIC SCHOOL SUPERVISION (GRADUATE COURSES)

(Master's candidates in this division elect their minor work in Psychology or an approved combination with Educational Psychology, or in Sociology Master of Education candidates are permitted as many as nine semester hours of work in their minor, but take the remaining twelve or fifteen, if minor is only six hours, from courses specifically described or listed under Supervision.)

S207. Technique of Teaching.-An advanced course in the teaching process, dealing with the theory underlying sound technique and applied specifically to the work of the elementary school. A course primarily for those interested in the supervision of elementary school instruction. A, June $27-$ August 8 . 3 s.h. Mr. Porter
S209. Statistical Methods in Education.-A course intended to familiarize teacher, supervisor, and administrator with the statistical method of treating educational and social data, so as to enable them to interpret and use the results of recent investigation in the science of education. Presented primarily from the point of view of the classroom teacher. D, Junc $27-$-August 8. 3 s.h.

Mr. Baker
S222. The Curriculum and Materials of the Elementary Grades.-A study of curriculum problems in the elementary schools. C, June 27-August 8. 3 s.h. Mr. Hillman
S232. Elementary School Supervision.-A survey of supervision as a means of improving instruction and adapting the curriculum to child and community needs. D, June 27 -August 8 . 3 s.h.
(Not offered if there is greater demand for S237.)
S273. Problems of High-School Supervision.-A consideration of such problems as aims and purposes of high-school supervision, elements of an effective program of supervision for city and rural schools, the administration of supervision. B, June 27 -August 8. 3 s.h. Mr. Highsmith

S287. Problems of Mentally and Educationally Retarded Children.-The causes, types, and degrees of mental retardation; psychological theories of mental deficiency; the education of slow learners in regular and special classes; the organization, objectives, curriculum, and teacher of the special class; the social and eugenical bearings of mental deficiency. The educational problems receive major consideration. A, Junc 27 -August 8. 3 s.h.

Mr. Wallin
S288. Problems of Mental Hygiene and Education.-The problems, objectives, scope, factors, and techniques of mental hygiene, particularly with reference to its educational and social implications; the prevention of hampering personality difficulties and developments of wholesome personality; types of adjustment difficulties in different types of children, especially in the normal, and their preventive and remedial treatment; the mental hygiene of the teaching and learning. B, Junc 27 -August 8.3 s.h.

Mr. Wallin
S293. Problems of the Teaching Personnel--Possibilities for growth of teachers co-operating with administrative officers for (1) the better solution of classroom problems; (2) effective use of plant, records, health guidance agencies; and (3) building sound attitude toward personnel management, cooperation, professional growth, and retirement. C. June 27 -August 8. 3 s.h. Mr. Baker
S304. The School as an Institution.-The place of the school in society, its history and philosophy. This is one of the reading courses required for the Master of Education. Selected problems guiding the reading of students will
be discussed in class, and reading students are expected to attend the class from time to time. Other students may take the course for three semester hours credit, as any other graduate course listed. A, C, August 9-29. 3 s.h.

Mr. Goldthorpe
S305. The Nature, Function, and Reorganization of the Curriculum.-This is one of the reading courses required for the Master of Education degree. Selected problems guiding the reading of students will be discussed in class, and reading students are expected to attend the class as suggested by the instructor. Other students may take the course for three semester hours credit, as any other graduate course listed. A, C, August 9-29. 3 s.h. Mr. Gwynn

Other courses accepted, not to exceed a total of six semester hours, as work in School Supervision are the following, when the student has the approval of his major professor: S234, S343, S363, listed under the division of Administration; S300, S208, S218, S258, S317, listed under Educational Psychology; S214, S264, S304, listed under History of Education; S205, S206, S216, S226, S236, S246, S266, S276, listed under Secondary Education; and S207, S212, S213, S237, S247, S257, listed under Elementary Education.

## EDUCATIONAL PSYCHOLOGY (GRADUATE COURSES)

(The Master of Education degree is not offered in this division. Master of Arts candidates should choose Psychology for their minor subject. It will be observed that certain of the courses listed under Educational Psychology are also listed under Supervision, Secondary Education, or Elementary Education.)

S209. Statistical Methods in Education.-D, Junc 27-August 8. 3 s.h.
Mr. Baker
S237. Investigations in Reading.-A summary of the results of the more important scientific studies in reading; interpretation of the results in terms of aims, methods, materials of instruction, testing diagnosis, and supervision; emphasis on problems requiring further investigation. B, June 27-August 8. 3 s.h.
(Not offered if there is greater demand for S232.)
S247. Investigations in Arithmetic.-An analytical survey of investigations in arithmetic, with three purposes in view: (1) to examine the techniques employed with respect to their adequacy as means of solving the problems attacked; (2) to test the validity of the results announced and the values of these results for the teaching of arithmetic; (3) to locate further problems in arithmetic in need of scientific research. C, June 27-August 8. 3 s.h.

Mr. Brownell
S258. Educational Measurements.-A study of the purposes and uses of standardized and informal tests and scales with special emphasis on their use in the improvement of instruction. D, June 27 -August 8. 3 s.h. Mr. Scates

S300. Introduction to Educational Research.-Primarily a pre-thesis writing course designed to be liberalizing as well as technical. The general purpose is to give the student an overview of research, acquaint him with the nature of research processes, and develop within him an appreciation of the essential characteristics of good research work. C, June 27-August 8. 3 s.h. Mr. Scates
S317. The Psychological Principles of Education.-An advanced study of teaching, learning, and the learner. This is one of the reading courses required for the Master of Education degree of students beginning work after June 1, 1938. Selected problems guiding the reading of students will be discussed in class. D, June 27-August 8. 3 s.h.

Mr. Brownell

## SECONDARY EDUCATION (GRADUATE COURSES)

(Master's candidates in this division should elect minor work in their teaching subject, or in Psychology or Sociology. Master of Education candidates are required to elect their minor work in their teaching subject, and all
of their work in Education must come from courses listed in this division. Teachers of Religion in public schools should register in this division unless they prefer to use Religion as their major subject.)

S206. Sociological Foundations of Secondary Education.-A consideration of the fundamental institutions of society and the problem of preparing youth to participate in them. The aims and objectives of the secondary education are considered in the light of the school as the strategic agent for guidance. Special attention will be given in the summer of 1946 to the problems of returning veterans in high school and on the junior college level. This course is closely related both to S205 and S215. B, June 27-August 8. 3 s.h.

Mr. Childs
S215. Educational and Vocational Guidance.-A survey of the literature on guidance with special reference to secondary education; a critical study of the principles and techniques used in guidance; an attempt to locate the problems most urgently in need of solution. Prerequisite: twelve semester hours in the Department, including course 105 or course 206. C, June 27-August 8. 3 s.h.

Mr. Childs
S234. Secondary School Organization and Administration.-C, June 27August 8. 3 s.h.

Mr. Highsmith
S273. Problems of High-School Supervision.-B, June 27-August 8. 3 s.h. Mr. Highsmith
Other courses accepted, not to exceed a total of six semester hours, as work in Secondary Education are the following, when student has the approval of his major professor: S233 or S233A, S287, S289, S209, S224, listed under the division of Supervision; S208, S217, S218, S219, S258, listed under Educational Psychology ; and S264 under History of Education.

## ELEMENTARY EDUCATION (GRADUATE COURSES)

(Master's candidates in this division should take their minor work of six semester hours in Psychology, Educational Psychology, or an approved combination of the two, or in Child Welfare and Development-wholly in Sociology, or partly Sociology and Psychology, or Educational Psychology, if a satisfactory combination can be worked out. Master of Education candidates in this division must take fifteen semester hours of work described or listed under Elementary Education.)

S207. Technique of Teaching.-A, June 27-August S. 3 s.h. Mr. Porter
S222. Elementary School Supervision.-C, June 27-August 8. 3 s.h.
Mr. Hillman
S232. Elementary School Supervision.-D, June 27-August S. 3 s.h.
(Not offered if there is greater demand for S237.)
S237. Investigations in Reading.-B, June $27-$ August 8. 3 s.h.
S247. Investigations in Arithmetic.-C, June 27-August S. 3 s.h.
Mr. Brownell
S268. Investigations in Geography.-A study of surveys and investigations in geography, with reference to: (1) nature and scope of the subject; (2) its place in realizing the aims and objectives of elementary education; (3) methods of teaching. B, June $27-$ August 8. 3 s.h.

Mr. Hillman
S287. Problems of Mentally and Educationally Retarded Children.A, June 27-August 8. 3 s.h.

Mr. Wallin
S288. Problems of Mental Hygiene and Education.-B, June 27-August 8. 3 s.h. Mr. Wallin
S304. The School as an Institution.-A, C, August 9-29. 3 s.h.
Mr. Goldthorpe

S305. The Nature, Function, and Reorganization of the Curriculum.A, C, August 9-29. 3 s.h.

Mr. Gwynn
Other courses accepted, not to exceed a total of six semester hours, as work in Elementary Education are the following, when the student has the approval of his major professor: S224, S233 or S233A, listed under the division of Supervision; S208, S217, S219, listed under Educational Psychology; and S26t under History of Education.

## COURSES RECOMMENDED FOR DEANS OF WOMEN AND OTHER PERSONS INTERESTED IN GUIDANCE AND COUNSELING

Persons interested in preparing for positions such as dean of women, girls' adviser, director of guidance, and the like, are advised to plan a Master's degree consisting of graduate courses drawn from educational psychology and supervision, general psychology, and sociology, from such courses as the following :

## Education

S206. Sociological Foundations of Education.
S208. Mental Tests and Applications.
S215. Educational and Vocational Guidance.
S218. Educational Implications of Genetic Psychology.
S233. Pupil Accounting, or
S233A. Pupil Personnel Problems and Procedure.
S234. Secondary School Organization and Administration.
S239. Investigations in Tests and Measurements.
S258. Educational Measurements.
S287. Problems of Mentally and Educationally Retarded Children.
S288. Problems of Mental Hygiene and Education.
S289. Character and Personality Testing.
S305. The Nature, Function, and Reorganization of the Curriculum.
S317. Advanced Educational Psychology.
Psychology
S204. Psychology of Motivation.
S206. Social Psychology.

## Sociology

S205. Social Pathology.
S212. Child Welfare.
S216. Urban Sociology.
S220. Rural Sociology.
S236. Social Ethics.
S281. Social Attitudes and Collective Behavior.
Of course, no one student can take all these courses within the limits of a Master's degree, and there are other courses that individual students may feel they need after consultation with their advisers. The plan is to meet the individual needs of the prospective candidate rather thán to prescribe a rigid course that he must follow.

## ENGINEERING

PROFESSOR WILLIAM IIOLLAND HALL, DEAN゙ OF THE COLLEGE OF EN゙GINEERING-101 ASBURY
The College of Engineering will use the summer to enable students who have had only one or three or five semesters, or for other reasons are irregular in their schedule beginning next September, to take courses in Engineering or other required subjects that they cannot take in the fall semester of 1946. Every Engineering student now in college should confer with Dean Hall at once and find out what work he can get to best advantage. Veterans desiring to enter the College of Engineering should write promptly for instructions as to work that may be available for them. Recent graduates of high school desiring to enter the College of Engineering will not be accepted until the September semester, but they should apply immediately if they expect to enter at that time.

## ENGLISH

Professor newhan i. White, chairaman-2G west duke building; professor J. b. hubbell, director of graduate studies- 105 east duke building

Those who wish to become candidates for the Master's degree in English are expected to have at least twelve semester hours in courses above Sophomore requirements. The Department reserves the right to require additional course work on the graduate level if the work of the student in his first term indicates inadequate preparation. For admission to candidacy with a major in American Literature, the student must present courses S137-S138 or an acceptable equivalent in American Literature either as part of the twelve stipulated above or in addition to them.

Master's candidates in English are required to complete at least three semester hours in Chaucer or certain other designated courses. Master's candidates who have completed as many as twelve semester hours of graduate work should take also the bibliography course, S301, at their earliest opportunity.

The language requirements for the A.M. degree in English may be satisfied by the knowledge of any of the following languages: French, German, Latin, Greek, or Italian. In exceptional cases when the candidate's thesis requires the use of another language than those listed above, it may by permission of the Graduate English Staff be substituted.

All graduate students in English must take a general examination set by the advisory committee of the Department before they will be admitted to candidacy for a degree. This examination is held at the opening of the first term of the Summer Session each year. It must be passed by every student not later than the beginning of his third term of summer work.

S1. English Composition.-A course in the fundamentals of English composition, oral and written, with special attention to sentence structure, syntax, common errors, etc. Frequent themes. A, June 27 -August 8. 3 s.h.

S2. English Composition.-A continuation of course S1. A, B, or C, Junc 27-August 8. 3 s.h.

S55. Representative English Writers.-Homer, Malory, More, Shakespeare, Pepys, and Swift will be studied. A. June 27 -August 8. 3 s.h.

S56. Representative English Writers.-Fielding, Boswell, Goldsmith, Sheridan, Byron, Carlyle, Thackeray, and Strachey will be studied. B. June 27August 8. 3 s.h.

S107. Journalism.-News-writing and copy-reading. B, June 27-August 8. 3 s.h.

Mr. Sugden

S108. Journalism.-The writing of feature articles and editorials. C, June 27-August 8. 3 s.h. Mr. Sugden

S120. History of the Theater.-History of the theater from the time of the Italian Renaissance to the present day. 3 s.h.

Mr. West
S124. Shakespeare.-The later plays, with emphasis on Hamlet, Othello, Lear, and Macbeth. B, June 27 -August 8. 3 s.h. Mr. Talbert

S126. English Literature of the Romantic Period.-Readings (chiefly of poetry) in the work of the younger Romantics: Byron, Shelley, Keats, Leigh Hunt, Hazlitt, and DeQuincey. 3 s.h.

S138. American Literature, 1850-1900.-This course consists of wide reading in American prose produced from 1850 to 1900. 3 s.h. Mr. Leary

S139. The Speaking Voice.-This course gives training in placement, pitch, range, and diction for use in professional work and in daily conversation. 3 s.h.

Mr. West
S140. The Speaking Voice.-This course emphasizes the finer points of interpretation, and the methods of developing a highly flexible and varied vocal style. A, August 9-29. 3 s.h.

Mr. West
(If there is greater demand for S119, History of the Theater: Greek, Roman, and Oriental, than for S140, the former course will be substituted.)

S151. Speech.-A course in the fundamentals of public speaking with emphasis upon the effective presentation of ideas. 3 s.h.

Mr. Badenoch
S152. Argumentation.-A course dealing with the principles of argumentation and debating with special emphasis upon brief-making and practicespeaking. Public questions are studied as parallel work. Prerequisite: English S151. 3 s.h.

Mr. Badenoch
S203. Chaucer.-A survey of his life and principal poems, the development of his art, the sources and social background of his poetry. A, June 27 August 8. 3 s.h.

Mr. Talbert
S223. Survey of Later Nineteenth-Century Literature.-This course is devoted chiefly to Carlyle, Dickens, Thackeray, Tennyson, and Browning. B, June 27-August 8. 3 s.h.

Mr. Bevington
S229. American Literature, 1800-1870: The New England Writers.-A survey of the principal writers of the period, including Poe, Irving, Cooper, Melville, and Simms. A, June 27 -August 8. 3 s.h.

Mr. Smith
S233. American Literature since 1870: Part I.-A survey of the principal writers of the earlier part of this period, including Whitman; Mark Twain, and Lanier. C, June 27-August 8. 3 s.h. Mr. Smith

S301. Bibliography and Methods of Research.-This course or its equivalent is required of all candidates for higher degrees. D, June 27-August 8. 3 s.h.

Mr. Leary
S307-308X. Seminar in American Literature.-D, June 27-August 8. 3 to 6 s.h.

Mr. Gohdes

## FRENCH

PROFESSOR ALBERT M. WEBB, CHAIRMAN-107 GRAY BUILDING
S2. Elementary French.-Continuation of course Si. A or B, June 27 August 8. 3 s.h.

S3. French Prose.-Reading and translation, exercise in grammar review and verb drill. Prerequisite: French S1-S2 or two years of high-school French. B, June 27-August 8. 3 s.h.

S4. French Prose.-Reading and translation, writing in French at dictation, and aural drill. Prerequisite: French S3. C, June 27 -August 8. 3 s.h.

S51. Introduction to French Literature.-Prerequisite: French S3-S4 or equivalent. A, June 27-August 8. 3 s.h.

S52. Introduction to French Literature.-Prerequisite: French S51. C, June 27-August 8. 3 s.h.

## GEOLOGY

S51-S52. General Geology.-This course is designed to give a general view of the surface features of the earth, their origin, structure and materials, and a working knowledge of the chief events of the earth's history (i.e., it will cover physical and historical geology). Only S52 will be offered. Lecture or recitation, A, daily; laboratory, 2:00-5:00 p.m., Tuesday, Thursday (June 27 to August 8). 4 s.h. (Laboratory fee, $\$ 2.50$.)

S102. Mineralogy (Cont'd).-B, C, June 27 -August S. 4 s.h.

## GERMAN <br> PROFESSOR VOLLMER, CHAIRMAN-205 PAGE BUILDING

S2. Elementary German.-The equivalent of the second college semester of German; intensive reading of graded material; grammar and vocabulary drill; dictation and sight translation. B, June 27-August 8. 3 s.h.

Mr. Wilson
S3. Intermediate German.-Grammar and composition; dictation, spoken German; reading of narrative and dramatic prose. A, June 27 -August 8. 3 s.h. Mr. Krummel
S4. Intermediate German.-Grammar and composition; dictation, spoken German; reading of narrative and dramatic prose. C, June 27-August 8. 3 s.h.

Mr. Krummel
S107. Scientific German.-The German language as used in the various contemporary sciences. A, June 27-August 8. 3 s.h. Mr. Wilson

## GREEK AND ROMAN LITERATURE

(In English Translation)
Greek S121. Homer.-The purpose of this course is to give a general survey of the life and civilization of the Greeks, especially to those who have never studied the language but wish to become acquainted with some of the choicest portions of the literature by the use of translation. The Iliad and Odyssey are read in translation and illustrated with stereopticon views of the excavations and discoveries at Troy and other cities of the Mycenaean Age. B, June 27-August 8. 3 s.h.

Mr. Rose
Greek S122. Greek Literature: The Great Tragedies.-The purpose of this course is similar to that of course S121. Many of the extant plays of Aeschylus, Sophocles, and Euripides are studies in English translations, and reports on assigned topics are required. A, June 27-August 8. 3 s.h.

Mr. Rose
Latin S112. Virgil and Horace.-A, C, August 9-29. 3 s.h. Mr. Rose

## HISTORY

PROFESSOR WILLIAM T. LAPRADE, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-2B WEST DUKE BUILDING
For admission to candidacy for a Master's degree in History the student must present a total of eighteen semester hours of prior work in History, of which at least six must be in American History if he plans to take his major work in that field. Before enrolling for thesis supervision, candidates for the Master's degree are required to complete at least three semester hours of seminar work and are strongly urged to enroll for this work in the second term of their attendance in the Summer Session. (See courses numbered 300 or above.)

S91. Political and Social History of the United States to 1850.-A general study of the development of the United States, prefaced by a brief review of the Colonial era, covering the period from the Revolution through the Compromise of 1850 . 3 s.h.

Mr. Van Dusen
S92. Political and Social History of the United States since 1850.-A continuation of course S91, concluding with an introduction to problems that have arisen in the United States since the World War. 3 s.h. Mr. Van Dusen

S125. European History 1789-1870.-The French Revolution and Napoleon; Congress of Vienna; the Unification of Italy and Germany. 3 s.h.

S126. Europe since 1870.-International relations leading to the First World War; Economic and Social Developments; the Second World War and its aftermath.

S141. The Far East and the Nineteenth Century.-3 s.h.
Mr. Clyde
S162. Russia from the Rise of the Duma through the Second World War. -Attention will be given to the Revolution of 1917, the development of the Soviet State, and the Russian part in the Second World War. 3 s.h.

Mr. Curtis
S203. Civil War and Reconstruction.-C', June 27 -August S. 3 s.h.
Mr. Woody
S241. Foreign Relations, Diplomacy of the United States, Pacific Area, and the Far East in the Nineteenth Century.-B, Junc 27 -August 8. 3 s.h. Mr. Clyde
S262. Russia in the Twentieth Century.-A, Junc 27 -August S. 3 s.h.
Mr. Curtis
S315. Seminar in Southern History.-Selected topics in the development of the Southern region, chosen year to year in different periods in its development. $D$, June 27 -August 8. 3 s.h.

Mr. Woody

## MATHEMATICS

professor J. J. gergen, chairman and director of graduate studies03 gray building
In the main term, June 27 to August 8, 1946, the Department of Mathematics plans to offer Thesis Seminar, S389X, and two of the following courses: Mathematics S225, S236, S255, S291, S325, S351. In the extended term, August 9 to 29, the Department plans to offer one of these courses: Mathematics S226, S256, S292, S326. A student interested in taking mathematics in the summer should write as early as possible to the Director of the Summer Session.

For admission to candidacy for the degree of Master of Arts with major in Mathematics, a student must have a minimum of twenty-four semester hours of credit for course work in mathematics or related fields. This course work must be approved by the Department through the Director of Graduate Studies.

It must include differential and integral calculus and an additional six semester hours of work in mathematical courses of at least Junior level.

To obtain the degree a candidate must specialize in one of the following divisions of Mathematics: algebra, analysis, or geometry. In his division of specialization he must write his thesis and complete at least twelve semester hours of course work. To help students meet the thesis requirement, the Department offers Thesis Seminar, S389X, in which supervision of thesis writing is available.

Each student should, as early as possible in his graduate work, discuss his progran with the Director of Graduate Studies or his representative.

S1. Introduction to College Algebra.-June 2̈̈-August S. 3 s.h.
S2. Trigonometry.-June 27 -August S. 3 s.h.
S5. College Algebra.-June 27 -August S. 3 s.h.
S50. Analytic Geometry.- $A, C$, August 9-29. 3 s.h.
M5. Differential Calculus.-June 2テ-.August S. 4 s.h.
M6. Integral Calculus.-A, C, August 9-29. 3 s.h.
S225. Theory of Equations.-Permutations, determinants, inatrices, linear systems, polynomials and their roots, constructibility, resultants, discriminants, simultaneous equations. Prerequisite: integral calculus. 3 s.h.

S226. Galois Theory of Equations.-Permutation group, groups of an equation, solvability by radicals. Prerequisite: integral calculus. 3 s.h.

S236. Modern Algebra.-Matrices, quadratic and bilinear forms, general Galois theory, hypercomplex systems. Prerequisite: integral calculus. 3 s.h.

S255. Projective Geometry.-Postulational, synthetic treatment centering around Desargues' theorem, the principle of projectivity, and the principal of duality; introduction of coordinate systems. Prerequisite: integral calculus. 3 s.h.

S256. Projective Geometry.-Conics, coordinates, order, continuity, metric properties. Prerequisite: integral calculus. 3 s.h.

S291. Theory of Functions.-Elementary functions, infinite series, conformal mapping, Cauchy's theorem and its applications. Prerequisite: integral calculus. 3 s.h.

S292. Theory of Functions.-Calculus of residues, Riemann surfaces, infinite products, special transcendental functions. Prerequisite: Mathematics 291. 3 s.h.

S325. Real Variable.-Number system, theory of limits. Prerequisite: integral calculus. 3 s.h.

S326. Real Variable.-Riemann integral, Lebesgue integral. Prerequisite: theory of limits. 3 s.h.

S351. Differential Geometry.-Curves and surfaces in three-dimensional Euclidean space. Prerequisite: integral calculus. 3 s.h.

S389X. Thesis Seminar.-Supervision of individual theses in algebra, analysis, and geometry. Students should consult the Director of Graduate Studies or his representative before registering. Thesis credit only.

## PHYSICS

PROFESSOR W. M. NIELSEN, CHAIRMAN OF PHYSICS DEPARTMENT-
111 PHYSICS bUILDING
For admission to candidacy for a Master's degree with major in Physics, students must have completed a minimuin of twelve semester hours of Physics.

This course work, together with the work in the field of the proposed minor, must be approved by the Department through the Director of Graduate Studies.

S1. General Physics.-This course traces historically and experimentally the development of great principles. It stresses neither mathematical processes nor exact measurements. Lectures, quizzes, and laboratory, full schedule daily. June 28-July 25. 4 s.h.

S2. General Physics.-This course traces historically and experimentally the development of great principles. It stresses neither mathematical processes nor exact measurements. Lectures, quizzes, and laboratory, full schedule daily, either June 28-July 25 or July 26-August 22. 4 s.h.
(Another section will be offered June 27-August 8.)

## POLITICAL SCIENCE

## PROFESSOR R. S. RANKIN, ACTING CHAIRMAN AND ACTING DIRECTOR OF GRADUATE STUDIES-308 LIBRARY

S61. American Government and Politics.-A study of the American politital system, emphasizing the organization and functioning of the national government. June 27 -August 8. 3 s.h.

S62. American Government and Politics.-A study of the American political system, emphasizing the organization and functioning of state and local government. Continuation of S61. June 27-August 8. 3 s.h.

S207. American Constitutional Law and Theory.-A study of leading principles of American government, as developed through judicial interpretation of the Constitution. A, June 27-August 8. 3 s.h. . Mr. Rankin

S209. State and Local Government in the United States.-A study of the historical development of state and local governments, their present organization, their relation to each other and to the federal government. C, June 27August 8. 3 s.h.

Mr. Rankin
S229. Recent and Contemporary Political Theory.-A study of the more significant contributions to political theory from 1850 to the present. $A, C$, August 9-29. 3 s.h.

Mr. Hallowell

## PSYCHOLOGY

PROFESSOR HELGE LUNDHOLM, CHAIRMAN-201 SCIENCE BUILDING, EAST CAMPUS ; PROFESSOR KARL E. ZENER, DIRECTOR OF GRADUATE STUDIES-

> 217A SCIENCE BUILDING

S91. Introduction to Psychology.-June 27 -August 8. 3 s.h.
S206. Social Psychology.-A, June 27 -August 8. 3 s.h. Mr. Adams
S212. Physiological Psychology.-A, C, August 9-29. 3 s.h. Mr. Zener
S217. Gestalt Theory.-Critical survey of principles and experimental contributions of the Gestalt School. B, June 27-August 8. 3 s.h. Mr. Adams

## RELIGION

PROFESSOR BENNETT HARVIE BRANSCOMB, DEAN OF THE DIVINITY SCHOOL- 110 DIVINITY SCHOOL; PROFESSOR H. SHELTON SMITH, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 302 dIVINITY SChOOL; PROFESSOR H. E. MYERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES204 DIVINITY SCHOOL
S1. The English Bible.-Survey of the contents of the historical and prophetic books of the Old Testament with particular reference to the literary, historical, and religious values. Required of all students majoring in religion, and is open to others as an elective. June 27 -August 8. 3 s.h.

S2. The English Bible.-Study of the Psalms, wisdom literature, and the literature of the New Testament with special attention given to the literary, historical, and religious values. Required of all students majoring in religion, and is open to others as an elective. Junc 27-August 8. 3 s.h.

S51. The History of the Hebrew People.-A study of the Hebrew people that gives attention to their political history, their religious and social institutions, their literary development, with special reference to their contributions to civilization. June 27-August 8. 3 s.h.

Mr. Spence
S52. New Testament Life and Literature.-A study of the literature of the New Testament, its historical background, and its religious value. Junc 27-August 8. 3 s.h. Mr. Spence

S102. The Christian Church in the Social Order.-This course will deal with the Christian Church in its service to society and its relation to other social institutions. $A, C$, June 5-26. 3 s.h. Mr. Ormond

S181. The Nature and Early Development of Religion.-Introduction to the early history of religion, the beliefs and practices of the more primitive peoples, and the religious life of the ancient world. Not open for credit to students who take Religion 183. June 27 -August 8. 3 s.h.

Mr. Cannon
S182. Living Religions of the World.-A survey of the religious systems of India, China, and Japan, followed by a study of Judaism, Mohammedanism, and Christianity, the object being to trace the historical development of each religion. Not open for credit to students who take Religion 183. June 27August 8. 3 s.h.

Mr. Cannon
S223. Conceptions of Man in Western Thought.-An analysis and interpretation of important types of philosophical and theological theory concerning man with a view to critical evaluation and construction. Prerequisite: 3 s.h. in Christian Doctrine or 6 s.h. in Philosophy. Junc 5-26. 3 s.h.

Mr. Cushman
S255. The Church and Community.-A study of the function of the Church in different types of community life. June 5-26. 3 s.h. Mr. Ormond
(A Divinity School course identical with S102 above; not open to candidates for the Master of Arts degree.)

S303. Contemporary Palestine.-A study of the geographical and cultural conditions and problems of Palestine today. August 9-29. 3 s.h.

Mr. Stinespring
S319. The Life and Letters of Paul.-A study of the most influential leader in the early formative days of Christianity. The aim is to examine his personal religious experience, the problems he encountered, the solutions he offered, and the form of belief and practice he advocated. June 27-August 8 . 3 s.h.

Mr. Clark
S321. Early Christian Apocalyptic Writings.-A study of the formulation of early Christian apocalyptic ideas, as set forth in the Pauline letters, the Gospels, the Revelation of John, the Shepherd of Hermas, the Sibylline Oracles, and other apocalypses attributed to Peter, Paul and Thomas. June 27-August 8. 3 s.h.

Mr. Clark
S392. Christian Thought in America Today.-An analysis and appraisal of the main currents in American religious thought since 1900. June 27-August 8. 3 s.h.

Mr. Smith
S396. Modern American Christology.-A critical study of the historical development of liberal conceptions of Jesus since the middle of the eighteenth century. June 27 -August 8. 3 s.h.

Mr. Smith

## SOCIOLOGY

PROFESSOR HOWARD E. JENSEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES203 CARR BUILDING
Attention is called to the fact that Sociology S101 is prerequisite to all other courses in the Department.

S101. General Sociology.-An introduction to the scientific study of social life; its origin, evolution, and organization as illustrated by the study of a number of concrete social problems. A, June 27-August 8. 3 s.h. Mr. Hart

S126. Sociology of Occupations.-B, June 27-August 8. 3 s.h.
Mr. Wilson
S206. Criminology.-A study of the original tendencies of man and the problem of socializing these tendencies; the relation of physical and mental defectiveness and untoward influence in the home and neighborhood to crime; the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. A, June 27 -August 8. 3 s.h.

Mr. Jensen
S212. Child Welfare.-A study of heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education ; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. B, June 27August 8. 3 s.h.

Mr. Jensen
S218. Cultural Anthropology.-A study of social origins and of the earliest stages of cultural evolution; the stone and metal ages ; the origins of industry, language, magic, religion, morals, science, art, and social organization in the family, horde, clan, and tribe. Lectures and assigned reading. A, C, August $9-29.3$ s.h.

Mr. Thompson
S236. Social Ethics.-An attempt to develop answers to such questions as: How can potential leaders discover and acquire the skills required for rendering their fullest service to their fellow men-particularly capacities for creative co-operation and insight? On what intellectually and scientifically sound basis can one formulate the fundamental policies of one's life? On what ultimate criteria are social policies to be based? A, June 27 -August 8. 3 s.h.

Mr. Hart
S281. Public Opinion.-The fundamental problems and processes of social control and social change in democratically organized groups; the nature and development of public opinion; its cultural and psychological bases, the role of leadership, pressure groups, prestige, propaganda, censorship, advertising, the press, the motion picture, the radio, the graphic arts, etc., in its management and dissemination. C, June 27-August 8. 3 s.h.

Mr. Wilson

## SPANISH

PROFESSOR OLAV K. LUNDEBERG, DIRECTOR OF THE SCHOOL OF SPANISH STUDIES115 CARR BUILDING; PROFESSOR BRADY R. JORDAN, DIRECTOR OF GRADUATE STUDIES IN ROMANCE LANGUAGES, 216 CARR BUILDING
The advanced courses in Spanish will probably be conducted on the East Campus but the undergraduate sections will all be on East. The School of Spanish Studies is suspended for the summer of 1946, except as to courses offered, because of the necessity of closing all of the East Campus dormitories for repairs accumulated during the war. It is, however, contemplated for the summer of 1947 to resume the full activities of the Spanish School.

S1. Introductory Spanish.-Pronunciation; essentials of grammar; early reading of simple prose; dictation; emphasis on attainment of reading ability accompanied by constant use of the language as a means of instruction; abundant oral work to give the student a basic understanding of the spoken language. $A, C$, Junc 27 -July 19. 3 s.h.

Mrs. Dillingiiam
S2. Introductory Spanish.-Continuation of course S1. A, C, July 20August 8. 3 s.h. (Other sections of Spanish 2 will be offered B, June 27August 8.)

Mrs. Dillingham
S3. Intermediate Spanish.-Systematic review of verbs, drill on idioms of high frequency, review of special grammatical difficulties; reading of graduated selections from modern prose authors; dictation and oral work. C, Junc 27-August 8. 3 s.h.

S4. Intermediate Spanish.-Rapid reading and analysis of modern prose works, with emphasis on achievement of ability to read without translation. A, June 27 -August 8. 3 s.h.

Mrs. Castellano
S65. Introduction to Modern Spanish Literature.-Study of representative masterpieces of nineteenth-century novel and drama; lectures; collateral reference readings on literary backgrounds. One standard-length novel will be read outside of class. A, Junc 27-August 8. 3 s.h.

S68. Introduction to Spanish-American Literature.-A study of typical works in the field of the novel and lyric, chiefly of the modern period; lectures on literary, social, and cultural backgrounds and tendencies; collateral readings. This course is offered as an alternate to Spanish 66 (Introduction to Classical Spanish Literature) and will be accepted in fulfillment of major and graduation requirements. C, June 27 -August 8. 3 s.h.

S173. Advanced Oral Spanish.-This course is designed to help the student gain assurance in self-expression and to develop rapid thinking in the language. Memorizing, oral reports, and discussions of specific topics will be based on prepared material and on the reading of daily newspapers. Enrollment limited to fifteen students. Prerequisite: for credit, at least three full years of college Spanish; for audition with instructor's consent, no specific prerequisite. D, June 27-August 8. 3 s.h.

Sr. Castellano
S255. Problems in the Learning and Teaching of Spanish.-This course will be devoted to consideration of two phases of teacher preparation: first, teaching methods and materials, theoretical and applied, with special attention to recent developments that affect the teaching of Spanish, new teaching aids and techniques, bibliographical and social orientation, cultural adjuncts such as singing, folk arts, dramatics, etc.; and second, the diagnosis and correction of pronunciation difficulties. Prerequisite, at least three years of college Spanish. In this corrective work electrical recording apparatus and listening devices will be used. Attention is called to the fact that this is not a course in general phonetics; familiarity with phonetic procedure and terminology is assumed. B, Junc 27-August 8. 3 s.h.

Mr. Russell
S278. Spanish-American Literature: The Colonial Period.-This course will present the development of Spanish-American literature from the beginnings through the colonial era. Attention will be focused on outstanding writers and tendencies. Lectures, discussion, reading and analysis of typical works. C, June 27 -August 8. 3 s.h.

Mr. Russell
S279. La novela picaresca.-En este curso se propone analizar y comentar las obras maestras de la novela picaresca considerada con relación al desarrollo de la novela en la Edad de Oro. Conferencias, lectura, reseñas orales, discusiones. A, June 27 -August 8. 3 s.h.

Sr. Castellano

## ZOOLOGY

IROFESSOR IRVING E. GRAY, CHAIRMAN-218 BIOLOGY BUILDING; PROFESSOR GEORGE T. HARGITT, DIRECTOR OF GRADUATE STUDIES- 326 BIOLOGY BUILDING

For admission to candidacy for a Master's degree in Zoology, students should have completed an undergraduate major in Zoology (courses in General Science and Botany are not counted as a part of a Zoology major). This normally amounts to about twenty-four semester hours, which should be distributed among the various fields of Zoology, and must include Vertebrate Zoology or Comparative Anatomy, Physiology, and Embryology, passed with creditable grades. A candidate should also have completed at least one year of Chemistry. Work for the degree will require eighteen hours in advanced courses in Zoology, and six hours in another department for a minor, in addition to a thesis. Before registration for a degree, students should confer with the Director of Graduate Studies for the Department. Students not candidates for a degree may take courses offered, if they have necessary prerequisites; but may not count them toward a degree until an undergraduate major has been completed.

S1. General Zoology.-A brief survey of the animal kingdom. Lectures, quizses, and laboratory, full schedule daily, June 28-July 25. 4 s.h.

S2. Animal Biology.-The principles of biology as applied to animals. Prerequisite: Zoology 1. Lectures, quizzes, and laboratory, full schedule daily, either June 28-July 25 or July 26-August 22. 4 s.h.

S53. Comparative Vertebrate Anatomy.-A study of the anatomy and evolution of the organ systems of vertebrates. Prerequisites: Zoology 1 and 2. July 26-August 22. 4 s.h.
(Write for special announcement of problem and research courses offered at Beaufort.)

S151-152. Comparative Physiology.-The primary functions of animals of all groups and a more detailed study of the physiological processes in mammals. Prerequisite: Zoology 53. Full schedule, June 27-August 8. 6 s.h.

Mr. Wilbur
S162. Marine Zoology.-3 s.h. June 26-July 16. (Laboratory fee, \$3.00.) Offered at Duke Marine Laboratory, Beaufort, N. C. Miss Magalhaes

S203. Marine Ecology.-A study of marine environments and societies. Collecting, practice in the use of instruments for the determination of conditions of existence, lectures, reviews, conferences, field and laboratory work. Consideration of environments, factors, succession, rhythms, communities, ocean, freshwater, land, intraspecific, and interspecific relations, productivity, conservation, problems, etc. 6 s.h. July 17 -August 27. (Laboratory fee, \$6.00.) Offered at Duke Marine Laboratory, Beaufort, N. C. Mr. Pearse

S219. Special Problems.-Hours to be arranged. I, II. (Laboratory fee, $\$ 1.00$ per credit hour.) Offered at Duke Marine Laboratory, Beaufort, N. C. Miss Magalhaes Mr. Pearse
(Write for special announcement of problem and research courses offered at Beaufort.)

## Director of the Summer Session, College Station

Durham, North Carolina
Date.
Dear Sir:
Please make temporary reservation for me in the following courses described in your Summer Session Announcement:
(Signed, full name)
Mr., Mrs., Miss.
Street.
Post Office Address.
Be careful to give the following information:
Are you a teacher in the public schools?............................................................ Total number years
teaching experience....................................................... Name and address of the school in which now teaching.
Name of high school from which you were graduated.
Year.
College training completed:
(Please check proper amount in years): One ( ), Two ( ), Three ( ), Four ( ) . Name of last college attended.

## Date

Graduate work (please check in years) : One ( ), Two ( ), Three ( ).
Last graduate work in.
college or university.
If at present a college student, where?

What class?.
you completed?. $\qquad$ In what department(s)?

For six weeks?
For nine weeks?
Alone?
roommate preferred.

In graduate dormitory?
Undergraduate?
Room reservations are tentative until the student has been accepted by the Graduate School or the Undergraduate College. Students who wish a room reserved will remit full amount of room-rent for six or nine weeks as desired. The Summer Session reserves the right to cancel room reservation or registration for courses without assignment of reason.

# BULLETIN OF DUKE UNIVERSITY 

## Undergraduate Instruction <br> (Trinity College, the Woman's College, and the College of Engineering)



1945-1946<br>ANNOUNCEMENTS FOR 1946-1947

## PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA

## ANNUAL BULLETINS

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For Bulletin of Undergraduate Instruction, apply to The Secretary, Duke University, Durham, N. C.
For Bulletin of The College of Engineering, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.
For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.
For Bulletin of The School of Medicine, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.
For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.
For Bulletin of The Divinity School, apply to The Dean of the Divinity School, Duke University, Durham, N. C.
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## BULLETIN

## OF

## Duke University



# UNDERGRADUATE INSTRUCTION 

(Trinity College, the Woman's College, and the College of Engineering)

## 1945-1946

ANNOUNCEMENTS FOR 1946-1947

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## CALENDARS OF THE COLLEGES

1946
June 27 Thursday, 9:00 A.m.- Registration of students for Summer Session, first term.
June 28 Friday, 8:00 A.M.-Instruction begins for Summer Session, first term.
July 4 Thursday-Independence Day: a holiday.
Aug. 8 Thursday-First term of Summer Session ends. Registration for second term.
Aug. 9 Friday, 8:00 A.m.-Extended term of Summer Session begins.
Aug. 29 Thursday-Extended term of Summer Session ends.
Sept. 12 Thursday, 9:00 A.m.-Dormitories open to Freshmen.
Sept. 12 Thursday, 7:30 p.m.-Assembly for all entering Freshmen; Freshman Orientation Program begins, Trinity College and College of Engineering.
Sept. 12 Thursday, 8:00 p.m.-Assembly for all entering Freshmen; Freshman Orientation Program begins, Woman's College.
Sept. 17 Tuesday-Registration and matriculation of new students with advanced standing, Woman's College.
Sept. 18 Wednesday, $11: 00$ A.m.-Formal Opening of the College.
Sept. 19 Thursday-Instruction begins.
Sept. 19 Thursday-Assembly of all students, Woman's College.
Nov. 28 Thursday-Thanksgiving Day: a holiday.
Dec. 11 Wednesday-Duke University Day.
Dec. 20 Friday, 1:00 p.m.-Christmas recess begins.
1947
Jan. 3 Friday, 8:00 A.M.-Instruction is resumed.
Jan. 18 Saturday-Mid-year examinations begin.
Jan. 28 Tuesday-Mid-year examinations end.
Jan. 29 Wednesday-Last day for matriculation for second semester.
Jan. 30 Thursday-Second semester begins.
March 22 Saturday, 1:00 p.m.-Spring vacation begins.
March 31 Monday, 8:00 A.m.-Instruction is resumed.
April 18 Friday-Last day for submitting orations for Wiley Gray Contest.
April 30 Wednesday-Last day for selection of courses for ensuing year.
May 9 Friday-Earliest date for beginning of Honors examination.
May 19 Monday-Final examinations for second semester begin.
May 29 Thursday-Final examinations end.
May 31 Saturday-Commencement opens; Senior Class Day; meeting of the Board of Trustees.
June 1 Sunday-Commencement Sermon.
June 2 Monday-Commencement Address; Graduating Exercises.

## 1946



## 1947



## GOVERNING BODIES AND OFFICERS

## EXECUTIVE COMMITTEE OF THE UNIVERSITY

(Consisting of three members from the University Trustees, three from the Endowment Trustees, and the President of the University.)

|  | Year of Election |  |  |
| :---: | :---: | :---: | :---: |
| J. F. Bruton, Chairman. | . 1918 | Wilson, | N. C. |
| G. G. Allen | . 1923 | .New York, | N.Y. |
| M. E. Newsom | . 1917. | . Durham, | N. C. |
| W. N. Reynolds. | 1933. | Winston-Salem, | N. C. |
| J. H. Separk. | . 1929. | . Gastonia, | N. C. |
| *W. R. Perkins. | . 1937 | .New York, | N. Y. |
| R. L. Flowers | . 1923 | . Durham, | N. C. |

## UNIVERSITY TRUSTEES

## Term Expires December 31, 1949

| G. Allen.. | 23. | New York, | N. Y. |
| :---: | :---: | :---: | :---: |
| James A. Bell | . 1920. | Charlotte, | N. C. |
| R. G. Cherry | . 1934. | Raleigh, | N. C. |
| R. L. Flowers | . 1927. | Durham, | N. C. |
| J. P. Frizzelle | . 1937. | Snow Hill, | N. C. |
| T. M. Grant. | . 1933. | Rocky Mou | N. C. |
| E. L. Jones. | . 1945. | Charlotte, | N. C. |
| J. R. Smith | 1934. | Mount Airy, | N. C. |

FROM THE ALUMNI

| B. F. Few | 1941...... New York, | N. Y. |
| :---: | :---: | :---: |
| C. F. Lambeth | .1915...... Thomasville, | N. C. |
| H. B. Porter. | .1941...... Raleigh, | N. C. |
| C. K. Proctor. | 1935.... . . Oxford, | N. C. |

Term Expires December 31, 1951


FROM THE ALUMNI


## Term Expires December 31, 1947



## ENDOWMENT TRUSTEES

| Allen, | . 1924 | New York, | N. Y. |
| :---: | :---: | :---: | :---: |
| *W. R. Perkins, Vice-Chairm | 24. | New York, | N. Y. |
| N. A. Cocke, Vice-Chairman | . 1924. | Charlotte, | N. C. |
| A. H. Sands, Jr., Secretary. | . 1924. | New York, | N. Y. |
| E. C. Marshall, Assistant S | . 1924. | Charlotte, | N. C. |
| W. C. Parker, Treasurer. | . 1924. | New York, | N. Y. |
| W. B. Bell. | . 1924. | New York, | N. Y. |
| C. I. Burkholder. | .1924. | Charlotte, | N. C. |
| Mrs. Doris Duke Crom well | 1933. | New York, | N. Y. |
| Mrs. J. B. Duke. | . 1924. | New York, | N. Y. |
| R. L. Flowers. | . 1926. | Durham, | N. C. |
| B. E. Geer. | . 1924. | Greenville, | S. C. |
| W. P. Inman. | . $19+5$. | Georgetown, | S. C. |
| W. S. Rankin. | 1925. | Charlotte, | N. C. |
| W. N. Reynolds | 1931. | Winston-Salem, | N. C. |
| W. S. O'B. Robinson |  | Charlotte, | N. C. |

## COMMITTEES OF THE UNIVERSITY TRUSTEES

Buildings and Grounds: J. R. Smith, Cherry.
Business Administration of the University: Hanes, Elias, Bowling, Doss.
Colleges: Alderman, Horne, Ivey.
Divinity School: Peele, Grant, Porter, Edgerton.
School of Forestry: Newsom, Few, Cherry, Edgerton.
Graduate School: Webb, Turrentine, Flowers, Craven.
Laze School: Willis Smith, Womble, Cherry, Frizzelle.
Library: Stanbury, Hanes, Lambeth.
Medical School and Hospital: Mayer, Proctor, Nalle.
Physical Education and Intercollegiate Athletics: Separk, J. R. Smith, Proctor, Jordan.

- Died, June 15, 1945.


## OFFICERS OF ADMINISTRATION

## GENERAL ADMINISTRATION

Flowers, Robert Lee, A.M., LL.D.
President of the Uniz'ersity
West Campus
Wannamaker, William Hane, A.B., A.M., Litt.D.
Viec-President and Dean of the University
West Campus
Markham, Charles Blackwell, A.B., A.M. Treasurer of the University

204 Dillard Street
Brower, Alfred Smith, A.B.
Administratize Assistant
518 Morehead Avenue
Iordan, Charles Edward, A.B., LL.D.
Secretary of the University
813 Vickers Avenue

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204 Dillard Street
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Tyree, William Allen, A.B. Dircetor in the Business Division

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Director in the Business Division
804 Third Street


* Resigned, August 31, 1945.
† Resigned, January 31, 1946.
$\ddagger$ Resigned, June 30, 1945.
* Upchurch, Walter McGowan, Jr., A.B., LL.B.

Financial Adviser, Student Activities
Johnson Apartments
Fearing, Robert Beveridge
Acting Financial Adviser, Student Activities
Duke University

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Wannamaker, William Hane, A.B., A.M., Litt.D. Dean of the University

West Campus

## UNDERGRADUATE COLLEGES

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Baldifin, Alice Mary, A.B., A.M., Ph.D.
Dean of the Woman's College
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Hall, William Holland, A.B., A.M., B.C.E., M.S.C.E.
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Ass Cast Campus
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Aeademic Adviser of Freshmen and
Sophomores, Woman's College
East Campus

* On active duty, U. S. Navy.
t Resigned, September 10, 1945.
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Branscomb, Bennett Harvie, A.B., B.A., M.A., Ph.D., Litt.D. Dean of the Dizinity School

Hope Valley
Russell, Elbert, A.B., A.M., Ph.D., Litt.D. Dean Emeritus of the Divinity School

804 Fourth Street
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Davison, Wilburt Cornell, A.B., B.A., B.Sc., A.M., D.Sc., M.D.
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Kendall, Helen Mildred, A.B. Registrar, School of Law

8 Aycock Apartments
$\ddagger$ Seabolt, Louise, A.B., A.M. Recorder, Woman's College

Faculty Apartments
Bishop, Lyda Josephine, A.B. Recorder, Woman's College

911 N. Gregson Street

## INSTRUCTIONAL STAFF

This alphabetical list includes all members of the various faculties of the Unizersity. The date denotes the first year of service.
Acomb, Frances Dorothy, (1945) A.B., A.M., Ph.D. Visiting Assistant Professor of History'

Faculty Apartments
Adams, Doxald Keith, (1931) A.B., M.A., Ph.D. Associate Professor of Psychology'

Cornwallis Road
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1003 Lamond Avenue
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Associate Professor of Neuropsychiatry 2122 Myrtle Drive

* Resigned, January 24, 1946.
$\dagger$ Resigned, October 31, 1945.
$\ddagger$ Resigned, August 31, 1945.

Allen, Clark Lee, (1941-43; 1945) A.B., A.M., Ph.D. Assistant Professor of Economics

626 Swift Avenue
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2610 Duke Homestead Road
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Allenton Apartments
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Baum, Paull Franklin, (1922) A.B., A.M., Ph.D. Professor of English

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2260 Cranford Road Associate Professor of Radiology and Associate in Anatomy
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2232 Cranford Road
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Hillsboro, N. C.
Beard, Joseph W.. (1937) B.S., M.D.
Hillsboro, N. C. Associate Professor of Surgery in charge of Experimental Surgery
Bernheim, Frederick, (1930) A.B., Ph.D. Professor of Pharmacology

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Bernheim, Mary Lilias Christian, Mrs., (1930) B.A., M.A., Ph.D. Assistant Professor of Biochemistry Woodridge Drive, Rockwood
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2608 Nation Avenue

* Resigned, August 31, 1945.
$\dagger$ Absent on leave, Government Service, 1945-1946.

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$\ddagger$ Brewster, Lawrence Fay, (1942) A.B., A.M., Ph.D. Instructor in History

910 Alonmouth Avenue
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[^25]Brown, Carl Fraser, (1943) A.B., M.A., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 2518 Banner Street
Brown, Frances, (1931) A.B., Ph.D. Assistant Professor of Chemistry 205 Jones Street
Brown, Harold William, (1943) A.B., M.S., Sc.D., Dr.P.H., M.D. Visiting Lecturer in Preventive Medicine and Public Health Duke Hospital
Brownell, William Arthur, (1930) A.B., A.M., Ph.D., LL.D.
Professor of Educational Psychology
Hope Valley
*Bruinsma, Henry A., (1938) B.M., M.M. Assistant Professor of Music

Duke University
Bryson, Thaddeus Dilliard, (1928) LL.D. Professor of Law

Hope Valley
Callaway, Jasper Lamar, (1937) B.S., M.D. Associate Professor of Medicine in charge of Dermatology and Syphilology

828 Anderson Street
Cameron, Edmund McCullough, (1926) A.B. Director of Physical Education and Athletics, and Assistant Coach of Football

Hope Valley
Cannon, James, III, (1919) A.B., A.M., Th.B., Th.M., D.D.
Ivey Professor of History of Religion and Missions 803 Second Street
Carlitz, Leonard, (1932) A.B., A.M., Ph.D.
Professor of Mathematics 2303 Cranford Road
Carpenter, David Williams, (1929) A.B., A.M., Ph.D. Associate Professor of Physics

137 Pinecrest Road
Carr, John Winder, Jr., (1926) A.B., A.M., Ph.D. Professor of Education

926 Monmouth Avenue
Carroll, Eber Malcolm, (1923) A.B., A.M., Ph.D. Professor of History
Carroll, R. Charman, (1943) A.B., M.D. Associate in Neuropsychiatry

University Apartments
Faculty Apartments
Carroll, Robert Sproul, (1941) M.D. Lecturer in Neuropsychiatry

Asheville, N. C.
Carter, Bayard, (1931) A.B., B.A., M.A., M.D. Professor of Obstetrics and Gynecology Myrtle Drive, West Campus
Cattell, Raymond Bernard, (1944) B.S., Ph.D. Visiting Associate Professor of Psychology, Hope Valley Road March 1, 1944, to February 28, 1945
Childs, Benjamin Guy, (1924) B.A., M.A. Professor of Education

1019 West Markham Avenue
Clark, Elon Henry, (1934) Assistant Professor of Medical Art and Illustration 2802 Legion Avenue
Clark, Kenneth Willis, (1931) A.B., B.D., Ph.D. 1308 Markham Avenue Professor of New Testament Language and Literature
Cleland, James T., (1945) M.A., B.D., Th.M. 2117 Myrtle Drive Professor of Homiletics and Preacher to the University
$\dagger$ Clyde, Paul Hibbert, (1937) A.B., A.M., Ph.D. Professor of History

Faculty Apartments
*On active duty, U. S. Army.
$\dagger$ Absent on leave, Government Service, 1945-1946.

Coile, Theodore Stanley, (1935) B.S.F., M.F., Ph.D.
Associate Professor of Forest Soils
Hillsboro Road
Cole, Robert Taylor, (1935) A.B., A.M., Ph.D.
Professor of Political Science
Conant, Norman Francis, (1935) B.S., A.M., Ph.D. Associate Professor of Bacteriology and Mycology

Sylvan Road Constant, Frank Woodbridge, (1930) B.S., Ph.D. Associate Professor of Phy'sics

2701 Legion Avenue
*Cooke, Thomas Cheatham, (1943)
Visiting Instructor in Mechanical Engineering 2209 Wilson Street
Cooper, Albert Derwin, (1934) A.B., M.D. Instructor in Medicine 1006 Dacian Avenue

Cooper, Gerald Rice, (1942) A.B., A.M., Ph.D. Research Associate in Surgery

2105 Chapel Hill Road
Cowper, Frederick Augustus Grant, (1918) A.B., A.M., Ph.D.
Professor of Romance Languages 1017 Dacian Avenue
Coxe, Alexander Bacon, Jr., (1945) B.S., Commander, U. S. Navy
Associate Professor of Naval Science and Tactics Chapel Hill, N. C.
†Craig, Robert Lawrence, (1939) B.A., M.D. Instructor in Neurology
$\ddagger$ Crispell, Raymond S., (1933) A.B., M.D. Associate Professor of Neuropsychiatry
Crum, Mason, (1930) A.B., Ph.D. Assistant Professor of Biblical Literature

919 Monmouth Avenue

Curtiss, John Shelton, (1945) A.B., A.M., Ph.D. Visiting Associate Professor of History
Cushman, Robert E., (1945) A.B., B.D., Ph.D. Associate Professor of Systematic Theology

2122 Englewood Avenue
Cuyler, W. Kenneth, (1938) B.A., M.A., Ph.D. Research Instructor in Obstetrics and Gynecologic Laboratory Technics

Duke University

912 Anderson Street
Duke University

Dai, Bingham, (1943) A.B., M.A., Ph.D. Lecturer in Psychiatry
Dann, William John, (1934) B.S., Ph.D. Associate Professor of Physiology and Nutrition

1010 Monmouth Avenue

Davidson, Alañ, (1944) A.B., M.D. Instructor in Otolaryingology and Ophthalmology

113 Pinecrest Road

Davidson, John Alexander, (1944) A.B., M.D. Instructor in Urology

2304½ Erwin Road
Duke Hospital
Davis, Clarence Daniel, (1943) S.B., M.D. Instructor in Endocrinology

2302 Erwin Road
Davis, Gifford, (1930) A.B., A.M., Ph.D.
Assistant Professor of Romance Languages
2015 Wa Wa Avenue

[^26]Davison, Wilburt Cornell, (1927) A.B., B.A., B.Sc., M.A., D.Sc., M.D., LL.D. Professor of Pediatrics and Dean of the School of Medicine Hope Valley

Dawson, Percy Millard, (1943) A.B., M.D. Visiting Professor of Physiology

2313 Club Blvd.
Dees, John Essary, (1939) B.S., M.D. Assistant Professor of Urology

413 Carolina Circle
Dees, Susan Coons, (1939) A.B., M.S., M.D. Associate in Pediatrics

413 Carolina Circle
de Guerra, Isabel M., Señora, (1945) B.S., Dra. en fil., Dra. en educ.
Visiting Instructor in Romance Langlages Faculty Apartments
DeJong, Herman, (1943) A.B., M.D. Associate Professor of Neuropsychiatry University Apartments
*Delaplane, Walter Harold, (1934) A.B., A.M., Ph.D. Assistant Professor of Economics

Duke University
de Vyver, Frank Traver, (1935) A.B., A.M., Ph.D. Professor of Economics

8 Sylvan Road
Dick, Macdonald, (1932) B.A., M.A., M.D.
Assistant Professor of Physiology and Pharmacology and Associate in Medicine

Hope Valley Road
Dillingham, Marjorie Carter, Mrs., (1941) A.B., M.A. Instructor in Spanish

Mordecai House, East Campus
Dow, Marie, Mme., (1934) L. ès L., M.A. Instructor (Part-time) in French Duke University
Dow, Neal, (1934) A.B., M.A., Ph.D.
Assistant Professor of Romance Languages Duke University
Dressel, Francis George, (1929) B.S., M.S., Ph.D. Associate Professor of Mathematics

309 Francis Street
Duke, Kenneth Lindsay, (1940) A.B., Ph.D. Associate in Anatomy

701 Club Boulevard
Eadie, George Sharp, (1930) M.A., M.B., Ph.D. Professor of Physiology and Pharmacology

Hope Valley
Eagle, Watt Weems, (1930) A.B., M.D.
804 Anderson Street Associate Professor of Surgery in charge of Otolaryngology
Easley, Eleanor Beamer, (1934) B.A., M.A., M.D. Associate in Obstetrics and Gynecology

2614 Stuart Drive
Easley, Howard, (1930) A.B., M.A., Ph.D. Assistant Professor of Education

2614 Stuart Drive
*Eiteman, Wilford J., (1937) A.B., A.M., Ph.D. Associate Professor of Economics

126 Pinecrest Road
elliott, William Whitfield, (1925) B.A., M.A., Ph.D. Professor of Mathematics

707 Morehead Avenue
Ellwood, Charles Abram, (1930) Ph.B., Ph.D., LL.D. Professor of Sociology, Emeritus

[^27]Epperson, Jesse Harrison, (1930) B.S.
Instructor in Preventioc Mcdicine and Public Health
1601 Hermitage Court
Erickson, Cyrus Conrad, (1937) B.S., B.M., M.D. Associatc Professor of Pathology

University Apartments
Ervin, Frederick Marion, (1946) B.S. in M.E. l'isiting Instructor in Mcchanical Enyinccriny
Everett, John Wendell, (1932) A.B., Ph.D. Assistant Professor of Anatomy

Duke University
2605 University Drive
*Ferguson, Arthur Bowles, (1939) A.B., Ph.D. Instructor in History

Duke University
Ferguson, George Burton, (1937) M.Sc. (Med.), M.D. Associate in Bronchoscopy

Beverly Apartments
Fitzgerald, William Stone, (1935) A.B., A.M. Instructor in English

3 Powe Apartments, 603 Watts Street
Follis, Richard H., (1945) B.S., M.D. Associate Professor of Pathology Duke Hospital
Forbus, Wiley Davis, (1930) A.B., M.D. Professor of Pathology
Fox, Herbert Junius, (1940) M.D. Instructor in Medicine Indian Trail
Gardner, Clarence Ellsivorth, Jr., (1930) A.B., M.D. Associate Professor of Surgery'

Hope Valley
*Garrard, Robert L., (1941) A.B., M.S., B.S., M.D. Instructor in Neuropsychiatry

1000 Hale Street
Gergen, John Jay, (1936) A.B., A.M., Ph.D. Professor of Mathematics

2803 Nation Avenue
Gibson, William Marion, (1934) A.B., A.MI., Ph.D. Associate Professor of Political Science

Faculty Apartments
Gilbert, Allan, (1920) B.A., A.M., Ph.D. Professor of English 516 Carolina Circle
Gilbert, Katharine Everett, (1930) A.B., A.M., Ph.D., Litt.D. Professor of Philosophy; Chairman, Department of Aesthetics, Art and Music

516 Carolina Circle
$\dagger$ Gillin, John, (1941) A.B., A.M., Ph.D. Associate Professor of Anthropology

718 Vickers Avenue
Glasson, William Henry, (1902) Ph.B., Ph.D., LL.D. 710 Buchanan Road Professor of Political Economy and Social Science, Emeritus
Gohdes, Clarence, (1930) A.B., A.M., Ph.D. Professor of American Litcrature

2614 Stuart Drive
$\ddagger$ Golmin, Judah, (1943) B.S., A.M., D.H.L. Lecturer on Jewish Literaturc and History
Goodman, Erastus Genair, Jr., (1940) M.D. Instructor in Medicine

1614 Delaware Avenue

Gordon, Lawrence Elliott, Jr., (1944) A.B., M.D. Instructor in Obstetrics and Gynecology

Chapel Hill, N. C.

Gordy, Walter, (February 1, 1946) A.B., M.A., Ph.D. Associatc Professor of Physics

2114 Woodrow Street

* On active duty, U. S. Army.
$\dagger$ Resigned, effective June 30, 1946.
$\ddagger$ Resigned, August 31, 1945.

Graham, William Alexander, (1939) A.B., M.D.
Instructor in Obstetrics and Gynecology
Beverly Apartments
Graves, Robert Williams, (1936) B.S., M.A., M.D. Associate Professor of Neurology

Cornwallis Road
Gray, Irving Emery, (1930) B.S., M.S., Ph.D. Professor of Zoology

124 Pinecrest Road
Greenhill, Maurice H., (1940) A.B., M.D. Associate Professor of Neuropsychiatry

Hope Valley
Grimson, Keith, S., (1942) B.A., B.S., M.D. Assistant Professor of Surgery
Gross, Paul Magnus, (1919) B.S., A.M., Ph.D. William Hozvell Pegram Professor of Chemistry
Grout, Julia Rebecca, (1924) A.B., M.S.
Hope Valley
Associate Professor of Plyysical Education, Woman's College
Hackney, George F., (1943) B.S. Visiting Instructor in Engincering Drazeing, 1012 Knox Street November, 1943, to June 30, 1945
Haines, Howard N., (1943) B.S. Visiting Instructor in Engineering Drazeing

2307 Club Blvd.
Hall, Frank Gregory, (1926) A.B., A.M., Ph.D. Professor of Physiology

122 Pinecrest Road
Hall, Louise, (1931) B.A., S.B. in Architecture, Brevet d'Art de la Sorbonne Assistant Professor of Fine Arts

210 Faculty Apartments
Hall, Snowden Cowman, (1937) A.B., M.D. Associate in Medicine

Danville, Va.
Hall, William Holland, (1915) A.B., A.M., B.C.E., M.S.C.E. Professor of Engineering and Dean of the College of Engineering

922 Urban Avenue
Hallowell, John Hamllon, (1942) A.B., A.M., Ph.D. Assistant Professor of Political Science

1502 Bivins Street
Hamblen, Edwin Crowell, (1931) B.S., M.D. Associate Professor of Obstetrics and Gynecology, and Clinical Professor of Endocrinology

810 Forest Hills Blvd.
Hamilton, William Baskerville, Jr., (1936) A.B., A.M., Ph.D. Assistant Professor of History 2256 Cranford Road
Handler, Philip, (1939) B.S., M.S., Ph.D. Assistant Professor of Biochemistry and Nutrition 2813 Legion Avenue
Hanes, Frederic Moir, (1930) A.B., A.M., M.D. Florence McAlister Professor of Medicine 2127 Myrtle Drive, West Campus
Hansen-Prüss, Oscar Carl Edvard, (1930) A.B., M.D. Associate Professor of Medicine in charge of Clinical Microscopy

3 Surry Road, Hope Valley
Hardy, Wililam Marion, (1946) B.S. in M.E. Visiting Instructor in Mechanical Enginecring

Duke University
Hargitt, George Thomas, (1930) Ph.B., A.M., Ph.D., Sc.D. Professor of Zoology

811 Watts Street
Harrar, Eliwood Scott, (1936) B.S., M.S., Ph.D. Professor of Wood Technology

2228 Cranford Road
Harris, Jerome Sylvan, (1936) A.B., M.D. Assistant Professor of Pediatrics and Biochemistry

Duke Hospital

Hart, Deryl, (1930) A.B., A.M., M.D.
Professor of Surgery Duke University Road and Highway 751
Hart, Hornell Norris, (1938) A.B., M.A., Ph.D. Professor of Sociology

804 Fourth Street
*Harwell, George Corbin, (1935) A.B., A.M., Ph.D. Instructor in English

2016 Sunset Avenue
Hatley, Charles Cleveland, (1917) A.B., A.M., Ph.D. Professor of Physics

708 Buchanan Boulevard
Hauser, Charles Roy, (1929) B.S., M.S., Ph.D. Associate Professor of Chemistry

1020 Rose Hill Avenue
$\dagger$ Hebb, Malcolm Hayden, (1938) A.B., Ph.D. Instructor in Physics

137 Pinecrest Road
Hendrix, James Paisley, (1938) B.S., M.A., M.D. Associate in Medicine

144 Pinecrest Road
Herring, Herbert James, (192甘) A.B., A.M. Myrtle Drive, West Campus Assistant Professor in Specch and Dean of Trinity College
Hesser, Frederick Harrison, (1941) A.B., M.D. Instructor in Neurology

2921 Horton Road
Hetherington, Duncan Charteris, (1930) A.B., M.A., Ph.D., M.D.
${ }^{\text {® }}$ Professor of Anatomy Hope Valley
Hickman, Franklin Simpson, (1927) A.B., S.T.B., A.M., Ph.D.
Professor of Preaching and the Psychology of Religion, and Dean of the Chapel

823 Buchanan Boulevard
Hickson, Arthur Owen, (1929) A.B., A.M., Ph.D. Assistant Professor of Mrathematics

2712 Legion Avenue
Hill, Douglas, (1931) A.B., M.A., Ph.D. Associate Professor of Chemistry

Dixon Road
Hinton, William Arthur, (1942) B.S. in M.E., M.S. in M.E. Assistant Professor of Mechanical Engineering 2124 Englewood Avenue

Hobbs, Marcus Edwin, (1935) A.B., A.M., Ph.D. Associate Professor of Chemistry

115 Pinecrest Road
Honge, Gameel Byron, (1942) B.S., M.D. Instructor in Surgery University Apartments
Hollinshead, William Henry, (1930) B.A., M.S., Ph.D. Associate Professor of Anatomy 1008 W. Trinity Avenue
Hollister, William Fredwin, (1945) M.D. Instructor in Surgery

Duke Hospital
Holton, Holland, (1912) A.B., J.D. Professor of the History and Science of Education, and Director of the Summer Session

808 Watts Street
Hook, Arnold Evans, (1945) B.S., M.S., Ph.D. Research Associate in Surgery'

Duke Hospital

[^28]$\dagger$ Resigned, January 31, 1945.

Hoover, Calyin Bryce, (1925) A.B., Ph.D., Litt.D.
Professor of Economics and Dean of the Graduate School of
Arts and Sciences
1702 Duke University Road
Horack, Hugo Claude, (1930) Ph.B., LL.B., LL.D.
Professor of Law and Dcan of the School of Laze
2021 Myrtle Drive, West Campus
Horn, Edward C., (March 1, 1946) B.S., A.M., Ph.D.
l isiting Instructor in Zoology
Duke University
*Hubbell, Jay Broadus, (1927) A.B., A.M., Ph.D.
Professor of American Litcrature
121 Pinecrest Road
Hull, Robert, (1943) B.M., M.M., Ph.D.
Assistant Professor of Music
202 Erwin Apartments
$\dagger$ Humphrey, Don Dougan, (1945) A.B., Ph.D.
Associate Professor of Economics
Duke University
Irving, William Henry, (1936) B.A., B.A. (Oxon.), M.A., Ph.D.
Professor of English 2707 Legion Avenue
Jeffers, Katherine R., (1937) A.B., A.M., Ph.D.
Assistant Professor of Zoology 1507 West Pettigrew Street
Jensen, Howard Eikenberry; (1931) A.B., A.M., B.D., Ph.D.
Professor of Sociology 143 Pinecrest Road
Johnson, Mychyle W., (1937) A.B., Ph.D. Assistant Professor of Zoology

2108 Sprunt Street
Johnston, Christopher, (1930) A.B., M.D. Assistant Professor of Medicine

1417 W. Pettigrew Street
Jones, Henry Hunter, (1943) A.B., C.E. Visiting Instructor in Enginecring Drazeing 1505 Alabama Avenue
Jones, Sara Elizabeth, (1945) A.B., A.M. Instructor in Zoology

Duke University
$\ddagger$ Jones, Тhomas T., (1937) A.B., M.D. Associate in Medicine

1919 Club Boulevard
Jordan, Archibald Currie, (1925). A.B., A.M. Assistant Professor of English Pinecrest Road, Corner U. S. Highway No. 751
Jordan, Brady Rimbey, (1927) Litt.B., Ph.D. Professor of Romance Languages 117 Pinecrest Road
Kaiser, Helen Louise, (1943) R.P.T.T.
Instructor in Physical Therapy, in charge of Division of Plyysical Therapy

208 Faculty Apartments
**Kemp, Edward H., (1940) A.B., Ph.D. Assistant Professor of Psychology 1403 Oakland Avenue
Kempner, Walter, (1934) M.D. Assistant Professor of Medicine 1505 Virginia Avenue
Kenyon, Van Leslie, Jr., (1945) B.S. Visiting Assistant Professor of Mechanical Engincering Duke University
Koch, Sigmund, (1942) A.B., A.M., Ph.D. Instructor in Psychology

[^29]Kowalzyk, Alexander Martin, Jr., (1945) B.S., Captain, U. S. Navy Professor of Naval Science and Tactics

2101 Myrtle Drive
Kramer, Paul Jackson, (1931) A.B., M.Sc., Ph.D. Professor of Botany

2251 Cranford Road
Kraybill, Edward K., (1939) B.S. in E.E. Instructor in Electrical Engineering

900 Dacian Avenue
Krummel, Charles Albert, (1922) Ph.B., Ph.M., Ph.D.
Professor of German 2118 Englewood Avenue
Kuhn, Beatrice Hart, (1944) B.A., M.D. Instructor in Dermatology and Syphilology University Apartments

Laidlaw, George Norman, (1945) A.B., M.A.
I'isiting Assistant Professor of Romance Lanyuages 2208 Pershing Street
Landon, Charles Edward, (1926) A.B., A.M., Ph.D. Associate Professor of Economics 1517 Edgevale Road

Lanning, John Tate, (1927) A.B., A.M., Ph.D. Professor of History

Hope Valley
Laprade, William Thomas, (1909) A.B., Ph.D. Professor of History

1108 Monmouth Avenue
Larsh, John E., Jr., (1943) A.B., M.S., Sc.D. Associate in Parasitology

Duke Hospital
Latty, Elvin Remus, (1937) B.S., J.D., J.Sc.D.
Professor of Law
Hope Valley
Leary, Lewis, (1941) B.S., A.MI., Ph.D.
Assistant Professor of American Literature 1503 Alabama Avenue
*Leighton, Clare, (1943) D.F.A.
Visiting Lecturer on Art
Hope Valley Road
Lemert, Ben Franklin, (1930) B.Sc. in Bus. Admin., M.A., Ph.D.
Associate Professor of Economic Geography 123 Pinecrest Road
$\dagger$ Leonard, Henry Siggins, (1937) A.B., A.M., Ph.D. Associate Professor of Philosophy

107 Pinecrest Road
$\ddagger$ Lester, Richard Allen, (1940) Ph.B., M.A., Ph.D. Associate Professor of Economics

2020 Wilson Street
Lewis, Modena, (1933) B.S., M.A.
Instructor in Physical Education and Dance 305 Erwin Apartments
Lewis, Ralph Elton, (1941) B.S., M.S. in M.E.
Assistant Professor of Mechanical Engineering 1308 .Markham Avenue

[^30]*Linebarger, Paul Myron Anthony, (1937) A.B., M.A., Ph.D. Assistant Professor of Political Science Duke University
Little, Lillian H., (1944) B.S., M.A. Instructor in Physical Education 801 Third Street

Löwenbach, Hans, (1940) M.D. 1017 Gloria Avenue Assistant Professor of Neuropsychiatry and Physiology
London, Arthur Hill, Jr., (1932) B.S., M.D.
Associate in Pediatrics $\quad$ Corner Shepherd and Wells Streets
London, Fritz, (1938) Ph.D., Docteur ès Sciences of the University of Paris Professor of Theoretical Chemistry

1508 Oakland Avenue
Long, John William, (1945) A.B., A.M. Visiting Instructor in History Duke University
Lovell, Durward Lee, (1937) M.D. Associate in Surgery University Apartments

Lowndes, Charles Lucien Baker, (1934) A.B., LL.B., S.J.D. Professor of Law 2016 Club Boulevard
Lugn, Alvin Leonard, Jr., (1945) B.S., Ensign, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 1010 Knox Street
Lundeberg, Olav K., (1931) A.B., A.M., Ph.D. Professor of Romance Languages

127 Pinecrest Road
Lundholm, Helge, (1930) Fil. Kand., Fil. Lic., Ph.D. Professor of Psychology

803 Second Street
Lyman, Richard Sherman, (1940) B.A., M.D. Professor of Neuropsychiatry

812 Anderson Street
McBryde, Angus, (1931) B.S., M.D. Assistant Professor of Pediatrics

410 Forest Hills Blvd., East
McCain, Paul Pressly, (1931) A.B., M.D., LL.D. Assistant Professor of Medicine

Southern Pines, N. C.
$\dagger$ McCloy, Shelby Thomas, (1927) A.B., M.A., B.A., B.Litt., Ph.D. Assistant Professor of History Vineyard Street, Tuscaloosa Forest
McCracken, Maude, (1941) A.B., M.S. Instructor in Medical Social Service 907 N. Mangum Street
McCrea, Forrest Draper, (1930) B.S., M.S., Ph.D. Associate Professor of Physiology and Pharmacology 1023 Demerius Street
McDermott, Malcolm, (1930) A.B., LL.B. Professor of Lazu

East Campus
McKee, Mary Ellen, (1944) B.S. Instructor in Physical Education 113 Faculty Apartments
MacKichan, Keith B., (1945) B.S. in E.E., M.S. in E.E., M.B.A.
Visiting Assistant Professor of Electrical Engineering 113 St. Paul Street
McLarty, Furman Gordon, (1933) A.B., B.A., A.M., Ph.D. Assistant Professor of Philosophy

Hillsboro, N. C.

[^31]Magalhaes, Hulda, (1943) B.S., A.M., Ph.D.
Instructor
Instructor in Zoology
Faculty Apartments
Maggs, Douglas Blount, (1930) A.B., J.D., S.J.D.
Professor of Law
Hope Valley
Manchester, Alan Krebs, (1929) A.B., A.M., Ph.D.
Associate Professor of History and Dean of Freshmen
Myrtle Drive, West Campus
Manning, Isaac Hall, Jr., (1939) A.B., M.D.
Associate in Medicine
Duke University
Markee, Joseph Eldridge, (1943) B.S., Ph.D.
Professor of Anatomy
512 Jackson Street
Martin, Donald Stover, (1932) A.B., M.D. 2208 Pershing Street Associate Professor of Bacteriology and Associate in Medicine
Martin, Elsie W., (1930) A.B., M.S.
Professor of Dietetics 206 Faculty Apartments, East Campus
Martin, Ruth Campbell, (1944) B.A., M.D. Associate in Anesthesiology

Duke Hospital
Matthews, George, Jr., (1944) Major, U. S. Army Commandant, S.C.I., 3427, A.S.T.P. Medical Unit

Chapel Hill, N. C.
Maughan, William, (1931) B.S., M.F. Professor of Forest Management

5 Sylvan Road
Maxwell, William Carey, (1930) A.B., A.M., Ph.D. Assistant Professor of German

142 Pinecrest Road
Meier, Otto, Jr., (1934) B.S. in E.E., M.S., E.E. Associate Professor of Electrical Engineering
Menefee, Elijah Eugene, Jr., (1940) B.S., M.D. Associate in Medicine

916 Monmouth Avenue

Menkin, Valy, (1944) B.S., A.M., M.D.
Assistant Professor of Pathology
2314 Woodrow Street

Iickey, Harold Chandler, (1936) B.A. Associate in Hospital Administration

2223 Cranford Road

East Campus
Montgomery, Clifford Corey, (1944) A.B., A.M. Visiting Instructor in History, July 1, 1944,

Erwin Apartments to February 28, 1945
*Moore, Thomas H., (1940) B.S. Instructor in Economics 1200 W. Markham Avenue
Moore, Tom Ernest, (1944) B.S.
Visiting Instructor in Engineering Drawing, July 1, 1944, to February 28, 1945
$\dagger$ Morgan, George Allen, Jr., (1936) Ph.B., A.M., Ph.D. Associate Professor of Philosophy

Duke University

[^32]Mueller, Earl George, (1945) B.M., A.M., M.F.A.
Visiting Instructor in Acsthctics, Art, and Music
Duke University
Muffley, Bernard Willinm, (1944) B.A., M.A., Lieutenant, U. S. Naval Reserve
Assistant Professor of Naval Science and Tactics 2422 Acadia Street
Myers, Hiram Earl, (1926) A.B., S.T.B., S.T.M. Professor of Biblical Literature

141 Pinccrest Road
Neale, William McCormick, (1945) B.E., M.E. $V$ isiting Instructor in Mechanical Enginecring 921 Monmouth Avenue until February 28, 1946
Nelson, Ernest Williams, (1926) A.B., A.M., Ph.D.
Associate Professor of History
909 North Gregson Street
Neurath, Hans, (1938) Ph.D.
Associate Professor of Biochomistry 2505 Club Boulevard
Nichols, Madaline W., (1945) A.B., A.M., Ph.D.
Visiting Assistant Professor of Spanish and History
1507 W. Pettigrew Street
Nicholson, William McNeal, (1935) A.B., M.D.
Assistant Professor of Medicine
812 Anderson Street
Nielsen, Walter McKinley, (1925) B.S. in E.E., Ph.D.
Professor of Physics
139 Pinecrest Road
*Nordheim, Lothar Wolfgang, (1937) Ph.D. Professor of Physics

2555 Cranford Road
Norfleet, Grizzelle M., (1938) A.B., B.S., M.A.
Supervisor of the Spastic Clinic
Fifth Street
Odum, Guy Leary, (1943) M.D.
Assistant Professor of Neurosurgery Hope Valley Road
Oosting, Henry John, (1932) A.B., M.S., Ph.D.
Associate Professor of Botany 2642 University Drive, Rockwood
Orgain, Edward Stewart, (1934) M.D. Assistant Professor of Medicinc Hope Valley

Ormond, Jesse Marvin, (1923) A.B., B.D., D.D. Professor of Practical Theology

110 Pinecrest Road
$\dagger$ Outler, Albert C., (1938) A.B., A.M., B.D., Plı.D.
Associate Professor of Historical Theology 2122 Englewood Avenue
Palmer, Aubrey E., (1944) B.S.E., C.E. Instructor in Civil Engineering

103 Turrentine Street
$\ddagger$ Parker, Harold Talbot, (1939) A.B., Ph.D. Instructor in History

Duke University
Patterson, Karl Bachman, (1920) A.B., A.M. Assistant Professor of Mathematics

1024 Monmouth Avenue

[^33]Patterson, Robert Leet, (1945) A.B., A.M., B.D., Ph.D.
Professor of Philosophy
Duke University
Pattinson, Hulme Holmes, (1943) B.S.M.E., B.A.
$V$ isiting Instructor in Mechanical Engineering,
1322 Arnette Avenue July 1, 1943, to June 30, 1945
Patton, Lewis, (1926) A.B., Ph.D. Associate Professor of English 614 Swift Avenue
Pearse, Arthur Sperry, (1926) B.S., A.M., Plı.D., LL.D. Professor of Zoology

Chelsea Circle, Hope Valley
Peele, Talmage Lee, (1939) A.B., M.D. Assistant Professor of Anatomy University Apartments

Pence, Orville Leon, (1945) B.A., M.A., Lieutenant Commander, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 2415 State Street
Perlzivelg, William Alexander, (1930) B.S., A.M., Ph.D. Professor of Biochemistry

Hope Valley
Perry, Harold Sanford, (1932) A.B., Ph.D. Assistant Professor of Botany

2302 Cranford Road
Persons, Elbert Lapsley, (1930) A.B., M.D Assistant Professor of Medicine

723 Anderson Street
Petry, Ray C., (1937) A.B., A.M., Plı.D. Professor of Church History.

128 Pinecrest Road
Pickrell, Kenneth LeRoy, (1943) M.D. Associate in Surgery

3 Sylvan Road
Pinkerton, Margaret Isabel, (1939) B.S., R.N. Professor of Nursing and Dean of the School of Nursing 412 Swift Avenue

Poston, Mary Alverta, (1930) A.M. Instructor in Bacteriology

512 Watts Street
*Poteat, James Douglass, (1936) A.B., LL.B., J.S.D. Professor of Lave

1106 Watts Street
Poteat, Mary, (1935) A.B., A.M., Plı.D. Instructor in English

103 Faculty Apartments
Predmore, Richard Lionel, (1945) A.B., M.A., D.M.L.
Visiting Assistant Professor of Romance Languages 1322 Arnette Avenue
Proctor, Arthur Marcus, (1923) A.B., A.M., Ph.D. Professor of Education

Myrtle Drive, West Campus
Putnam, Frank William, (1942) B.A., M.A., Ph.D. Instructor and Research Associate in Biochemistry 1013 Dacian Avenue
†Quynn, Dorothy Mackay, Mrs., (1930) A.B., A.M., Docteur de l'Université de Paris Assistant Professor of History Woodridge Drive, Rockwood
$\ddagger$ Quynn, William Rocers, (1930) B.A., M.A., Ph.D. Assistant Professor of Romance Languages Woodridge Drive, Rockwood

* Absent on leave, Government Service.
$\dagger$ Absent on leave, 19+5-1946.
$\ddagger$ On active duty, U. S. Army.

Raney, Richard Beverly, (1934) A.B., M.D. Associate in Orthopaedics

1110 Shepherd Street
Rankin, Robert Stanley, (1927) A.B., A.M., Ph.D. Professor of Political Science

1107 Knox Street
Rankin, William Walter, Jr., (1926) B.E., M.A. Professor of Mathematics

1011 Gloria Avenue
*Ratchford, Benjamin Ulysses, (1928) B.S., A.M., Ph.D. Professor of Economics 133 Pinecrest Road

Kaymond, Mary Lois, (1931) A.B., M.A. Assistant Professor of Romance Languages 1003 Lamond Avenue
Keamer, I. Thomas, (1931) Ph.G. Instructor in Pharmacy

University Apartments
Reed, Frederick Jerome, (1935) M.E., M.S. Associate Professor of Mechanical Engineering 2203 Englewood Avenue
Reeves, Robert James, (1930) A.B., M.D.
Clinical Professor of Radiology
Anderson Street
$\dagger$ Reid, John Turner, (1939) A.B., A.M., Ph.D. Assistant Professor of Romance Languages

Duke University
Reque, Paul Gerhard, (1940) M.D.
Instructor in Medicine, Dermatology and Syphilology 2023 Sprunt Street
Reynolds, Thomas Davies, (1945) A.B., A.M. Duke University
Visiting Instructor in Mathematics
Rhine, Joseph Banks, (1927) B.S., M.S., Ph.D. Professor of Psychology

908 W. Club Boulevard
Roalfe, William R., (1930) LL.B. Professor of Law 1208 Glendale Avenue

Robert, Joseph Clarke, (1938) A.B., A.M., Ph.D. Associate Professor of History

1102 B Street
Roberts, John H., (1931) A.B., Ph.D.
Associate Professor of Mathematics
2813 Legion Avenue
Roberts, Louis Carroll, (1933) B.S., M.D. Instructor in Urology

2028 Sunset Avenue
Rogers, Robert S., (1937) A.B., A.M., Ph.D., F.A.A.R. Professor of Latin

148 Pinecrest Road
Ropp, Theodore, (1938) A.B., A.M., Ph.D. Assistant Professor of History

Rose, Jesse Lee, (1936) A.B., M.A., Ph.D. Instructor in Latin and Greek

603 Watts Street
Ross, Norman F., (1937) D.D.S.
Instructor in Dentistry

* Absent on leave, Government Service, first half, 1945-1946.
† Resigned, January 5, 1946 .

Ross, Robert Alexander, (1930) B.S., M.D.
Associate Professor of Obstetrics and Gynecology 818 Anderson Street
Rowe, Gilbert Theodore, (1928) A.B., S.T.D., D.D., Litt.D. Professor of Christian Doctrine

150 Pinecrest Road
Rucker, Marvin Pierce, (1941) A.M., M.D., LL.D.
Lecturer in Obstetrics and Gynecology
Richmond, Va.
Runin, John J., II, (1945) A.B., M.A. Instructor in Speech
Kuffin, Julian Meade, (1930) A.B., M.A., M.D. Associate Professor of Medicine

816 Anderson Street
Kulfs, Donald J., (1945) A.B., M.A., Ph.D. Visiting Instructor in English

Duke University
Rundles, Ralph Wayne, (1945) A.B., Ph.D., M.D. Instructor in Medicine

132 Pinecrest Road
Russell, Elbert, (1926) A.B., A.M., Ph.D., Litt.D. Professor of Biblical Interpretation and Dean Emeritus of the Divinity School

804 Fourth Street
Sanders, C. Richard, (1937) B.Ph., M.A., Ph.D. Associate Professor of English

921 Monmouth Avenue
Sanders, Paul Hampton, (1936) A.B., LL.B. Professor of Law

2711 Stuart Drive
Sawyer, Charles Henry, (1944) A.B., Ph.D. Assistant Professor of Anatomy
Saylor, John Henry, (1928) A.B., A.M., Ph.D. Associate Professor of Chemistry

606 Buchanan Boulevard

Scates, Douglas Edgar, (1939) A.B., Ph.D. Associate Professor of Education

2247 Cranford Road
Schaubel, Howard James, (1942) A.B., M.D. Instructor in Orthopaedics

2702 Legion Avenue
Schettler, Clarence Henry, (September 1, 1946) A.B., A.M., Ph.D. Associate Professor of Sociology

Duke University
Schiebel, Herman Max, (1939) A.B., M.D. Instructor in Surgery

1410 Pennsylvania Avenue
Schlayer, Clotilde, (1937) Ph.D. Research Associate in Medicine

1503 Virginia Avenue
Schumacher, Francis X., (1937) B.S. Professor of Forestry

6 Sylvan Road
Sears, Roy Blackburn ${ }_{2}$ (1945) B.S., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 108 West Seeman Street
Sefley, Walter James, (1925) E.E., M.S. Professor of Electrical Engineering

1005 Urban Avenue
Sharp, D. Gordon, (1939) B.S., M.A., Ph.D. Research Associate in Surgery

202 Francis Street
Shears, Lambert Armour, (1927) A.B., A.M., Ph.D. Instructor in German

917 Green Street
Shepherd, Harold, (1939) A.B., J.D. Professor of Law

Cole Mill Road
Sherman, Robert Park, (1945) A.B., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 1000 Lamond Avenue

Shields, John Herman, (1926) A.B., A.M. Assistant Professor of Accomnting

1315 Vickers Avenue
*Shipman, George A., (1938) A.B., Ph.D. Associate Professor of Political Science

Duke University
Simpson, William Hays, (1930) A.B., A.M., Ph.D
Assistant Professor of Political Science
1408 Dollar Avenue
Smitif, Alexander G., (March 1, 1946) B.S. Visiting Instructor in Physics

Duke University
Smith, David Tillerson, (1930) A.B. M.D. Hope Valley Professor of Bacteriology and Associate Professor of Medicine
Smith, George August, (1945) A.B., Lieutenant Commander, U. S. Naval Reserve.
Assistant Professor of Naval Science and Tactics Duke University
Smith, Hilrie Shelton, (1931) A.B., Ph.D., D.D., Litt.D.
Professor of American Religious Thought 1523 Hermitage Court
Smith, O. Norris, (1937) B.A., M.D. Associate in Medicine

Greensboro, N. C.
Smith, Robert Sidney, (1932) A.B., A.M., Ph.D. Associate Professor of Economics 2236 Cranford Road
Smith, Ruth Slack, Mrs., (1927) A.B., A.M.
Instructor in Education and Associate Dean of Undergraduate
Instruction, Woman's College 115 Faculty Apartments, East Campus
Smith, Susan Gower, Mrs., (1930) A.B., M.A.
Associate in Medicine
Hope Valley
Snively, Mary Helen, (1930) R.N., Anes. Associate in Anesthesia

2913 Horton Road
Snyder, Mac Edison, (1945) A.B., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics

1603 Duke University Road
Spence, Bessie Whitted, Mrs., (1929) A.B., A.M., B.D. Instructor in Biblical Literature

Hope Valley
Spence, Hersey Everett, (1918) A.B., A.M., B.D., D.D., Litt.D. Professor of Biblical Literature and Religious Education Hope Valley
Spengler, Joseph John, (1934) A.B., M.A., Ph.D. Professor of Economics
Sponer, Hertha, (1935) Ph.D. Professor of Physics Hope Valley
Springer, John Young, (1936) A.B., M.B.A. Assistant Professor of Economics

Duke University
Stalvey, James Bentamin, (1945) A.B., M.A. Visiting Instructor in Political Science

Duke University
Stevens, Joseph Blackburn, (1940) B.S., M.D. Associate in Medicine

2240 Cranford Road

Stewart, Paul Dekker, (1946) A.B., A.M. Visiting Instructor in Political Science. March 1 to June 30, 1946, Semester
$\dagger$ Still, Bayrd, (1938) A.B., A.M., Ph.D. Assistant Professor of History

Duke Hospital

* Absent on leave, Government Service, 1945-1946. $\dagger$ On active duty, U. S. Army.

Stinespring, William Franklin, (1936) B.A., M.A., Pl.D. Professor of Old Testament

1107 Watts Strect
Stocker, Frederick W., (1943) M.D. Assistant Professor of Ophthalmology

Bland Apartments
Sturn, Albert Lee, Jr., (1946) A.B., A.M., Ph.D. l isiting Assistant Professor of Political Science

Duke University
Sugden, Herbert Wilfred, (1929) A.B., A.M., Ph.D. Assistant Profcssor of English

University Apartments
Suitt, Robert Burke, (1940) M.D. Associate in Neuropsychiatry

1311 Dollar Avenue
Sunderland, Elizabeth Rean, (1939-42, 1943) A.B., A.M., Ph.D. Assistant Professor of Art Faculty Apartments
Sivain, Hall, (1945) A.B., A.M. Visiting Instructor in English Duke University
*Synnor, Charles Sackett, (1936) A.B., Ph.D. Professor of History

116 Pinecrest Road
Talbert, Ernest William, (1942) A.B., M.A., Ph.D. Assistant Profcssor of English

26071/2 Chapel Hill Road
Taylor, Alton Robert, (1939) B.S., Ph.D. Research Associate in Surgery

2117 Club Boulevard
Taylor, Harvey Grant, (1945) A.B., A.M., M.D. Assistant Profcssor of Pcdiatrics

Duke Hospital
Taylor, Haywood Maurice, (1930) B.S., M.S., Ph.D. Associate Professor of Biochemistry and Toxicology

University Drive, Rockwood
Theiss, Ernest S., (1939) B.S. in M.E., M.S. Assistant Professor of Mechanical Engincering 2645 University Drive
Thomas, Joseph Miller, (1930) A.B., Ph.D. Professor of Mathematics

2215 Cranford Road
Thomas, Walter Lee, Jr., (1932) A.B., M.A., M.D. Assistant Professor of Obstetrics and Gynecology 415 Carolina Circle
Thompson, Engar Tristram, (1935) A.B., A.M., Ph.D. Associatc Professor of Sociology

138 Pinecrest Road
Thomson, Roy Bertrand, (1938) B.S., M.F., Ph.D. Associate Professor of Forest Economics

2243 Cranford Road
$\dagger$ Trent, Josiah Charles, (1939) A.B., M.D. Instructor in Surgery
Truesdale, James N., (1930) A.B., A.M., Ph.D. Assistant Professor of Greck Duke University
Turtle, Lewis, (1945) B.S. Visiting Instructor in Enginccriny Drazcing, Duke University Novcmbcr, 1945, to March, 1946, Scmestcr
$\ddagger$ Vail, Charles Rowe, (1939) B.S. in E.E. Assistant Professor of Electrical Engineering 1001 Watts Street
Vance, Mary Hendren, Mrs., (1926) A.B., A.M. Assistant Professor of English
Van Alstyne, Dorothy, (1942) A.B., A.M., Ph.D. Faculty Apartments Visiting Assistant Profcssor in Education and Psychology

* Absent on sabbatical leave, 1945-1946.
$\dagger$ On leave of absence.
$\ddagger$ Absent on leave, second semester, 1945-1946.

Van Dusen, Albert Edward, (1941) B.A., M.A.
Visiting Instructor in History
2807 Hillsboro Road
Van Tuyl, Janice, (1944) B.S. Instructor in Physical Education

203 Faculty Apartments
*Van Voorhis, Robert Henry, (1941) A.B., A.M., Ph.D. Instructor in Economics

1002 Wells Street
Vollmer, Clement, (1926) A.B., A.M., Ph.D. Professor of German 2114 Myrtle Drive, West Campus
von Beckerath, Herbert, (1935) Ph.D.
Professor of Economics and Political Science Hope Valley
Vosburgh, Warren Chase, (1928) B.S., M.S., Ph.D.
Professor of Chemistry
2319 Englewood Avenue
Wackerman, Albert Edward, (1938) B.S., M.F.
Professor of Forest Utilization
Dover Road, Hope Valley
Wade, Luther Irivin, (1943) A.B., Ph.D. Instructor in Mathematics

2418 Banner Street
Wade, Wallace, (1931) A.B.
Head Coach of Football, Trinity College Myrtle Drive, West Campus
Walker, Calvin Alexander, Jr., (1945) B.S., Lieutenant Commander, U. S. Navy (Ret.)
Associate Professor of Naval Science and Tactics Chapel Hill, N. C.
Walker, Charlotte Frisch, (1941) M.D. Associate in Neuropsychiatry

2121 W. Pettigrew Street
Walter, David Oswell, (1942) A.B., A.M., Ph.D., J.D.
Visiting Assistant Professor of Political Science; 2806 Legion Avenue Lecturer on Labor Lazv, September, 1942, to February 28, 1945
Walton, Loring Baker, (1929) A.B., Lic. ès L., Ph.D. Associate Professor of Romance Languages

2235 Cranford Road
Ward, Charles Eugene, (1927) A.B., A.M., Ph.D. Associate Professor of English

Guess Road
Waters, Luther Bradford, Jr., (1944) B.A., M.D. Instructor in Radiology

University Apartments
Watson, Karl Brantley, (1936) B.S., A.B., A.M., Ph.D. Assistant Professor of Education 1101 Virginia Avenue
$\dagger$ Watson, Richard L., Jr., (1939) A.B., Ph.D. Instructor in History

Duke University
Way, Vernon Elgin, (1930) A.B., A.M., M.A. Assistant Professor of Greek

1102 Englewood Avenue
Webb, Albert Micajah, (1903) A.B., A.M. Professor of Romance Languages

1017 Trinity Avenue
Weeks, Margaret, (1942) B.S., M.A. Instructor in Physical Education

Erwin Apartments
Weisflock, Mayo Dean, (1945) B.A., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 1020 Wells Street
Welfling, Weldon, (1936) A.B., A.M., Ph.D. Associate Professor of Economics

Pickett Road

[^34]West, Alfred Thurber, (1930) B.S., A.M.
Assistant Professor of English
1112 Georgia Avenue
*Wharton, George Willard, Jr., (1939) B.S., Ph.D.
Instructor in Zoology
1420 Pennsylvania Avenue
White, Marie Anne, Mrs., (1930) A.B., A.M1.
Assistant Professor of English
1003 Lamond Avenue
White, Newman Ivey; (1919) A.B., A.M., Ph.D.
Professor of English
1003 Lamond A venue
Widgery, Alban Gregory, (1930) B.A., M.A.
Professor of Philosophy
St. Catherine, Pinecrest Road
Wilbur, Ralph Sydney, (1933) B.S. in M.E., M.E. Professor of Mechanical Engineering

1018 Demerius Street
Williams, James Wesley, (1937) A.B., B.S. in C.E. Assistant Professor of Civil Engineering

206 Swift Avenue
Wilson, Frederick Eliphaz, (1923) A.B., A.M. Assistant Professor of German

1020 Demerius Street
$\dagger$ Wilson, John Woodrow, (1940) B.S., Ph.D. Instructor in Zoology 1004 Monmouth Arenue

Wilson, Robert North, (1910) A.B., M.S. Professor of Chemistry

822 Third Street
$\ddagger$ Wilson, Robert Renbert, (1925) A.B., A.M., Ph.D., LL.D.
Professor of Political Science
717 Anderson Street
Wolf, Frederick Adolphus, (1927) A.B., A.M., Ph.D.
Professor of Botany
924 Urban Avenue
Woodhall, Barnes, (1937) A.B., M.D.
Associate Professor of Surgery in charge of Neurosurgery Duke Hospital
Woody, Robert Hilliard, (1929) Ph.B., A.M., Ph.D. Associate Professor of History

2648 University Drive
Young, Edward Hudson, (1923) A.B., A.M. Assistant Professor of Romance Languayes

10 Beverly Apartments
Young, Franklin Woodrow, (1945) A.B., B.D. Instructor in Biblical Literature

1006 Demerius Street
Zener, Karl Edward, (1928) Ph.B., A.M., Ph.D. Professor of Psychology

Sparger Road

Amore, Salvatore Thomas, (January 1, 1946) A.B., A.M., Ph.D.
Instructor (Part-time) in Chemistry Duke University
Batchelder, Marion Frances, (1939) R.N.
Instructor in Nursing Administration and Superition
Duke Hospital

[^35]Bevington, Helen Smith, Mrs., (1943) Ph.B., M.A. Instructor (Part-time) in English

2608 Nation Avenue
Breslow, David Samuel, (1944) B.S., Ph.D. Instructor (Part-time) in Chemistry

Duke University
Bryan, William Alfred, (1944) A.B., A.M. Instructor (Part-time) in English, March 1, 1944, to February 28, 1945

Duke University

Bryson, Edwin Constant, (1942) LL.B.
Instructor (Part-time) in Economics, July 1, 1943, to October 31, 1944 ;
Nozember 1, 1945, to June 30, 1946
Cox, Robert Boyd, (1945) A.B., A.M.
Instructor (Part-time) in English
1023 Sycamore Street

Dillingham, William Pyrle, (1945) B.A.E., M.S.
Instructor (Part-time) in Economics Mordecai House, East Campus
Eastham, Barry Caufield, (1944) B.S., LL.B.
Visiting Instructor in Physics, March 1, 1944,
Duke University to February 28, 1945

Egerton, Franklin Nicholas, (1943) A.B., A.M.
Visiting Instructor in Physics, July 1, 1943,
810 Broad Street to June 30, 1945; November 1, 1945, to February 28, 1946, Semester
Greenewald, Herbert, (1943) B.S.
Visiting Instructor in Physics, July 1, 1943, to February 28, 1945
1819 Washington Street
Hester, William, (1945) A.M.
Instructor (P'art-time) in Philosophy, November 1, 1945, Duke University to February 28, 1946, Semester

Manes, Milton, (1944) B.S.
Instructor (Part-time) in Chemistry Duke University
Mooring, Francis Paul, (1944) A.B.
Visiting Instructor in Physics Duke University
*Slay, James Matthew, (1945) A.B., A.M.
Instructor (Part-fime) in Romance Languages Duke University
Weith, A. James, (1941) A.B., A.M.
Instructor (Part-time) in Chemistry Duke University
Wood, Virginia Loraine, (1945) A.B., M.A. Instructor (Part-time) in Political Science Duke University

## RESEARCH ASSOCIATES

$\dagger$ Adams, Joe Taylor Chemistry 1128 Englewood Avenue B.S., Southern Methodist University ; Ph.D., Duke University
$\dagger$ Amore, Salvatore Thomas Chemistry 807 Chapel Hill Street A.B., Brooklyn College; M.A., Ph.D., Duke University

* Resigned, February 28, 1946.
† Resigned, December 31, 1945.
*Breslow, David Samuel Chemistry 807 Chapel Hill Street B.S., College of the City of New York; Ph.D., Duke University

Darkis, Frederick Randolph Chemistry 1211 Alabama Avenue B.S., M.A., Ph.D., University of Maryland

Humm, Harold Judson, (1942) B.A., M.A., Ph.D. Resident Investigator Marine Station, Beaufort, N. C. instructional assistants
Atwell, Robert James, (1944) A.B., M. D.
Assistant in Medicine Duke Hospital
Baker, Horace Mitchell, Jr., (1944) A.B., M.D. Assistant in Surgery

Duke Hospital
Baldwin, Marie, (1944) A.B., M.D. Assistant in Neuropsychiatry Duke Hospital
Bestebreurtje, Annie M., (1945) M.D. Assistant in Pathology

Duke Hospital
Bryson, Edwin Constant, (1931) LL.B. 1023 Sycamore Street Assistant in Legal Aid Clinic; Lecturer in Business Law
Callaifay, Eugene, Jr., (1945) M.D. Assistant in Otolaryngology and Ophthalmology Duke Hospital
Collins, John Pope, (1944) A.B., M.D. Assistant in Surgery

Erwin Apartments
Connar, Richard Grigsby, (1944) A.B., M.D. Assistant in Medicine

Duke Hospital
Conrad, Elizabeth, (1945) A.B., M.D. Assistant in Pediatrics

Duke Hospital
Cronk, Robert Thomas, (1944) A.B., M.D. Assistant in Otolaryngology and Ophthalmology

Duke Hospital
Davison, Atala Thayer Scudder, (1942) A.B., M.D. Assistant in Pediatrics

Hope Valley
Donegan, Charles Kendall, (1944) M.D. Assistant in Medicine

Duke Hospital
Dratz, Henry Martin, (1944) M.D. Assistant in Surgery

Duke Hospital
Edwards, Joseph Philip, (1942) Laboratory Technician in Electrical Engineering 1604 B Street
$\dagger$ Edwards, Linus Matthew, Jr., (1940) D.D.S. Assistant in Dentistry

Duke Hospital
Getscher, Philip E., (1944) M.D. Assistant in Orthopaedics

Duke Hospital
Glenn, John Capers, (1944) M.D. Assistant in Radiology

Duke Hospital
Hansen, James Lawrence, (1945) M.D. Assistant in Pathology

Duke Hospital
Harris, Irene Anderson, (1945) B.S., M.D. Assistant in Neuropsychiatry

Duke Hospital

* Resigned, December 31, 1945.
$\dagger$ On active duty, U. S. Army.

Ingram, James Mayheiv, Jr., (1944) M.D.
Assistant in Obstetrics and Gynecology Duke Hospital
Irvin, Charles Warren, Jr., (1944) M.D. Assistant in Medicine

Duke Hospital
Iverson, Lalla, (1945) B.S., M.D. Assistant in Pathology

Duke Hospital
Kernodle, George Wallace, (1944) A.B., M.D. Assistant in Pediatrics

Duke Hospital
Knight, Alton J., (1938) A.B., LL.B. Assistant in Legal Aid Clinic

Carver Street (Ext.)
Kubek, Robert Bruce, (1944) A.B., M.D. Assistant in Medicine

Duke Hospital
McCulloch, David Jay, (1945) M.D. Assistant in Radiology

Duke Hospital
Magruder, William Wailes, (1944) M.D. Assistant in Neuropsychiatry

Duke Hospital
Marrow, Jane Gregory, (1944) A.B., M.D. Assistant in Obstetrics and Gynecology

Duke Hospital
Marzoni, Francis Anthony, (1944) A.B., M.D. Assistant in Pathology

Duke Hospital
Mason, Mary Locher, Mrs., (1931) Diploma in Fine Arts, Teachers College, Columbia University Assistant in Education

Miller, Charles Henderson, (1934) A.B., LL.B. 2108 Club Boulevard Assistant in Legal Aid Clinic; Lecturer in Business Law

Murphy, Robert Jennings, Jr., (1945) B.S., M.D. Assistant in Pediatrics Duke Hospital

Oliver, Keith Millner, (1944) B.S., M.D. Assistant in Obstetrics and Gynecology

Duke Hospital
Palumbo, Leonard, (1944) M.D.
Assistant in Obstetrics and Gynecology Duke Hospital
Postleth wait, Raymond W., (1945) B.S., M.D. Assistant in Surgery

Duke Hospital
Puppel, Allen D., (1945) B.A., M.D. Assistant in Urology

Duke Hospital
Rayburn, Mack, (1945) B.A., M.D. Assistant in Otolaryngology and Ophthalmolog.1

Duke Hospital
Reardon, Marc James, (1945) A.B., M.D. Assistant in Surgery

Duke Hospital
Richards, Charles Emmett, Jr., (1944) A.B., M.D.
Assistant in Urology
Duke Hospital
Riley, Kathleen Amelia, (1944) B.S., M.D. Assistant in Dermatology and Syphilology

Segerson, John Arthur, (19+4) A.B., M.D. Assistant in Neurology

Duke Hospital
Shingleton, William Warner, (1944) A.B., M.D. Assistant in Surgery

Duke Hospital
Thurston, Thomas Gardiner, (1945) B.S., M.D. Assistant in Radiology

Duke Hospital
Townsend, Bertram Fairley, (1944) A.B., M.D. Assistant in Obstetrics and Gynecology

Duke Hospital
Tyler, Edward Alton, (1945) M.D. Assistant in Neuropsychiatry

Duke Hospital
Watkins, Carlton Gunter, (1945) A.B., M.D. Assistant in Pediatrics

Duke Hospital
Youngstrom, Karl Arden, (1945) A.B., M.A., Ph.D., M.D. Assistant in Radiology

Duke Hospital

## instructional assistants in physical education trinity college

Burger, Wilbert Eugene, (1945) B.S. in Ed. Instructor in Physical Education 2521 Cascadilla Street
Caldwell, Herschel, (1930) Instructor in Physical Education; Coach of Freshman Sports 908 Markham Avenue
Card, Wilbur Wade, (1902) A.B. Instructor in Physical Education

1110 Minerva Avenue
Chambers, Robert Luther, (1933) B.S. in Ed. Instructor in Physical Education; Head Coach of Varsity Track

2311 Prince Street
Coombs, John Wesley, (1929) B.S. Instructor in Physical Education; Head Coach of Varsity Baseball

West Campus
Cox, Robert Calvin, (1942) A.B., M.A. Instructor in Physical Education; Assistant in Football 709 Shepherd Street
Dean, Dayton Robert, (1931) A.B. Business Manager of Athletics

2207 Pershing Street
*Fogleman, IVilliam Harry, (1935) A.B. Instructor in Physical Education; Coach of Tennis

2417 Farthing Street
Gerard, Kenneth, (1931) B.S. Instructor in Physical Education; Director of Intramural Sports and Coach of Basketball 1209 North Duke Street
Hagler, Ellis, (1930) A.B.

- Instructor in Physical Education; Coach of Varsity Golf; Assistant Coach of Football

220 Forest Wood Drive
Hennemier, John Mathiack, (1945) Acting Instructor in Physical Education

University Apartments
Lewis, Hubert Murry, (1937) B.S. Assistant Instructor in Physical Edncation and Track Duke University

Montfort, Robert, (1940) B.A. Assistant Instructor in Physical Education

Duke University
*Resigned, November 30, 1945.

Persons, Walter, (1930) A.B.
Instructor in Physical Education; Coach of Swimming; Coach of Lacrosse

612 Swift Avenue
Potter, Harvey L., (1940) B.A.
Instructor in Physical Education;
Coach of Wrestling
1000 Wells Street
*Stanley, Dennis Keith, (1939) A.B.E., M.Ed.
Instructor in Physical Education; Assistant
Coach of Football
University Apartments

## THE UNIVERSITY LIBRARIES UNIVERSITY LIBRARY

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407 Watts Street
Frey, Ellen Frances, B.A., M.A.
Curator of Rare Books
No. 4 Powe Apts., Buchanan Blvd.
Merritt, Gertrude, A.B.
Chief of the Processing Division
403 Watts Street
$\dagger$ Nuermberger, Gustave Adolph, A.B., A.M., Ph.D., Certificate of Librarianship
Head Reference Librarian Washington, D. C.
Oyler, Helen, A.B., B.S. in L.S.
Head Circulation Librarian
512 Watts Street
Tilley, Nannie M., A.B., A.M., Ph.D.
Curator of Manuscripts
Myrtle Drive
Wescott, Mary, A.B., B.S. in L.S.
Head Cataloguer
403 Watts Street

Covington, Lena, A.B., A.B. in L.S.
Head Classifier
403 Watts Street
Jones, Mrs. Bertha Hopkins, B.S., A.B. in L.S.
Head Serials Librarian No. 11 Powe Apts., Buchanan Boulevard
Parker, Wixie Elma, A.B., B.S. in L.S.
Periodicals Librarian
No. 7 Powe Apts., Watts Street
Sturgeon, Jane, B.A., B.S. in L.S.
Head Descriptive Cataloguer
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Ardrey, Estelle, A.B., A.B. in L.S. Pamphlet Librarian

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1700 Markham Avenue
Bennetr, Mrs. Kathryn B., A.B., B.A. in L.S.
Subject Cataloguer
101 Higbee Street
$\ddagger$ Bitting, Mary Elizabeth, A.B., M.A., A.B. in L.S. Bibliographer

2105 Club Boulevard

* Resigned, January 18, 1946.
$\dagger$ On leave in Government work.
$\ddagger$ On leave, September, 1945.

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Assistant, Descriptive Cataloguing Section
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Calhoun, Katherine, A.B., B.S. in L.S. Bibliographer

205 Watts Street
Canada, Mary Whitfield, A.B., M.A. Assistant, Circulation Department

1311 Second Street
Coble, Elizabeth, A.B. Assistant, Circulation Department 1012 Hale Street
Copley, Hilda Assistant, Work Room 1005 Sixth Street
Dollar, Mrs. Annabelle Assistant, Work Room 1609 Englewood Avenue
Duke, Mrs. Kenneth L. Secretary to the Librarian
Elkins, Mrs. Shirley W. Assistant, Order Section

1112 North Duke Street
Everingham, Mrs. Blanche B., A.B. Biology Librarian

208 Buchanan Boulevard
Field, Mrs. Frank H., A.B., M.A. Assistant, Serials Section

302 Anderson Street
Forlines, Martha Lane, A.B. Assistant, Circulation Department

1014 Broad Street
Frederick, Marion Assistant, Serials Section
Gattis, Mrs. Elizabeth, A.B., B.S. in L.S. Descriptive Cataloguer
Goodwin, Noma Lee, A.B. Assistant, Manuscript Department
Goodyear, Helen M., A.B. Serials Cataloguer 909 Gregson Street
Hammett, Bessie Accessions Librarian
Hix, Edwin, A. B. Assistant Circulation Librarian

918 Lamond Avenue
812 Fourth Street
Hockman, Mrs. Charlotte F. Assistant, Order Section
Holman, Harriet, A.B., M.A. Undergraduate Librarian Faculty Apartments
Johnson, Gladys, A.B., B.S. in L.S. Bibliographer

1023 Gloria Avenue
Kale, Mrs. Ethel Long
Assistant in charge, Engineering Library
Kennedy, Jo, A.B., B.S. in L.S. Documents Librarian

Laws, Ellen Frances
Assistant, Descriptive Cataloguing Section

* On leave, October 1, 1945.

2316 Club Boulevard
208 Jones Street
Chapel Hill Road

Route No. 1, Durham

Lemen, Wilhelmina, A.B., A.B. in L.S. Documents Librarian

1700 Markham Avenue
Linthicum, Erma
Assistant, Circulation Department
811 Wilkerson Avenue
Maner, Adelaide S., A.B., B.S. in L.S. Subject Cataloguer
McKenzie, Mrs. Harma P., A.B.
Assistant, Descriptive Cataloguing Section
208 Buchanan Boulevard
211 Vineyard Street
MacMillan, Louise, A.B.
Assistant, Serials Section
1414 Dollar Avenue
Merriken, Marie, A.B. Assistant, Manuscript Department

Box 828, College Station
Reep, Wilda, A.B. Assistant, Newspaper Section

1312 Shawnee Street
*Rutledge, Mrs. Evelyn H., A.B., B.S. in L.S. Bibliographer

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Sherman, Ella Frances No. 19 Ambassador Apartments Secretary to the Chief of the Processing Division
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Shuford, Mary Opal, A.B., A.B. in L.S. Assistant Classifier

805 Sixth Street
Thompson, Mrs. Virginia K., A.B., B.A. in L.S. Bibliographer

2416 Huron Street
Walters, Helen Julia, A.B.
Assistant, Undergraduate Library
2025 Woodrow Street
Wilkerson, Ruth Assistant to Classifiers 1700 Markham Avenue
Wilkerson, Mrs. Luther C. Assistant, Order Section, and Assistant Secretary to the Acting Librarian

505 Yates Avenue
Wood, Mrs. Sallie L.
Librarian in charge, Plyysics-Mathematics Library
1113 N. Duke Strect
Young, Mrs. Jean Śteiner, A.B. Assistant Curator of Rare Books

1006 Demerius Street

## divinity school library

Ehlmardt, George Brinkmann, A.B. Librarian

Faculty Apartments woman's college library
Griggs, Lillian Baker, Mrs., B.A. in L.S. Librarian
Harrison, Evelyn Jennings, A.B., B.S. in L.S. Head Cataloguer
Hicks, Mrs. Spears, A.B., A.B. in L.S. Reference Librarian

121 West Seeman Street
Lockhart, Mrs. Florence G., A.B. Assistant, Catalogue Department

915 Monmouth Avenue 403 Watts Street

* Resigned, February 1, 1946.

108 Buchanan Boulevard

Morris, Mrs. Bess Horton
Assistant, Reference Department
510 Buchanan Boulevard
Shepard, Elizabeth, A.B., B.A. in L.S. Cataloguer

208 Watts Street
Shirey, Mrs. Helen
Assistant, Circulation Department
604 Cleveland Street
Tillett, Margaret S., A.B., A.B. in L.S.
Circulation Librarian
112 West Seeman Street
Tysinger, Catherine Victoria, A.B., B.S. in L.S. Cataloguer

1007 W. Trinity Avenue

## LAW LIBRARY

Roalfe, William Robert, LL.B.
Librarian
1208 Glendale Avenue
Covington, Mary Simmons, A.B., LL.B.
Research Librarian
East Duke Campus
Day, Katherine, B.S. Assistant Cataloguer

512 Watts Street
Long, Marianna, A.B., B.S. in L.S. Head Cataloguer

## MEDICAL SCHOOL LIBRARY

Farrar, Judith, A.B., B.S. Librarian

117 Faculty Apartments, East Campus

## UNIVERSITY CHAPEL

Hickman, Franklin Simpson, A.B., A.M., S.T.B., Ph.D. Dean of the Chapel

823 Buchanan Boulevard
Barnes, James Foster, A.B., A.M. Director of Choral Music

2401 Cranford Road
Brees, Anton
University Carillonneur Duke University
Hendrix, Mildred Little,-Mrs., B.S.
University Organist
144 Pinecrest Road
DuBose, Robert Newsome, A.B., B.D. Adviser in Religious Activities

Duke University

## PHYSICAL EDUCATION AND STUDENT HEALTH

Cameron, Edmund McCullough, (1926) A.B. Director of Physical Education and Athletics and Assistant Coach of Football

Hope Valley
Hill, Dan Winfield, A.B. Assistant to the Athletic Director

Eubanks Street
Grout, Julia Rebecca, A.B., M.S.
Associate Professor of Physical Education, Woman's College

205 Jones Street
Speed, Joseph Anderson, M.D.
Director of Student Health
913 Dacian Avenue

Page, Wray Ramsey, Mrs., R.N.
Resident Nurse
East Campus Infirmary
Vestal, Mozelle, R.N.
Resident Nurse

## East Campus Infirmary

## ORGANIZATIONS-MUSIC AND ART

Barnes, James Foster, A.B., A.M.
Director of Men's Glee Club
2401 Cranford Road
Barnes, Mrs. James Foster
Director of Women's Glee Club
2401 Cranford Road
Bone, Allan H., B.A., M.M.
Director of College Band
308 Greenwood Drive
Gatling, Eva, B.A., M.A.
Supervisor of Art Equipment and Exhibitions 1108 W. Trinity Avenue Hull, Robert, B.M., M.M., Ph.D.

Director of the College Orchestras
202 Erwin Apartments

## RESIDENCE

Wilson, Mary Grace, A.B.
Dean of Residence, Woman's College
Faculty Apartments
Schrader, Mrs. Arline Ditlevson, A.B., A.M.
Assistant to Dean of Residence; Counselor, Southgate Southgate
Pemberton, Mrs. Mary Norcutt
Hostess, West Campus
West Campus Union
Barnes, Evelyn, B.S. Counselor, Alspaugh House

Alspaugh House

Dale, Dorothy J., A.B.
Counselor, Bassett House
Bassett House
DeArmond, Genevieve, A.B., A.M.
Counselor, Pegram House
Grimsley, Mrs. Corinne, A.B., A.M.
Counselor, Aycock House
Pegram House
atton, Dorothy, A.B.
Counselor, Brown House
Aycock House
Brown House
Taylor, Mrs. Harriet
Counselor, Giles House
Wellborn, Mary Moss, A.B.
Counselor, Jarvis House
Giles House
Jarvis House
*Powell, Virginia, B.S.
Dietitian, the Union, West Campus
214 Swift Avenue
$\dagger$ Oliver, Mrs. Helen
Dietitian, the Union, East Campus Corner Fairview and Wells Streets

## Bethke, Lucille, B.S.

Manager, the Union, East Campus
Duke University
Norwood, Mrs. G. D.
Dietitian, Southgate Hall
204 Watts Street

* Resigned, September 1, 1945.
$\dagger$ Resigned, December 31, 1945.

Boring, Mrs. Hal
Supervisor of Dormitories, West Campus
115 Watts Street
Hooker, Mrs. Mary R. Powe Apartments, Buchanan Boulevard Supervisor of Dormitories, East Campus
Lea, Mrs. Beulah C.
Supervisor of Dormitories, West Campus 1920 Chapel Hill Road
Long, Mrs. R. T.
Supervisor of Dormitories, H'est Campus
705 Shepherd Street
Wegener, Mrs. Mary E. Powe Apartments, Buchanan Boulevard
Supervisor of Dormitories, East Campus
Aldridge, Fred Soule, A.B., A.M. East Campus
Chaplain of Duke Hospital and Director of the Golden Cross

## FELLOWS AND GRADUATE ASSISTANTS honorary fellow

Name
McDayid, Raves Ioor
A.B., Furman University; A.M., Ph.D., Duke University

UNIVERSITY FELLOWS
Braverman, Elizabeth Miriam English Durham, N. C. Parks
A.B., Grinnell College

Braverman, Howard
History
Home Address New York, N. Y. Department English uke University
Carr, Thomas Deaderick Physics
B.S., M.S., University of Florida

Carroll, Howard Religion
A.B., University of Richmond ; B.D., Duke University

Clayering, Rose English
A.B., Brooklyn College

Cohen, Eckford Larry
B.S., Mississippi State College

Dillingham, William Pyrle
Mathematics
Economics
B.A.E., University of Florida; M.S., University of Tennessee

Gesling, Martha Myra Education Lancaster, Ohio
A.B., Ohio Northern University; A.M., Ohio State University
*Hopkins, James Franklin History New Haven, Conn. A.B., University of Mississippi ; A.M., University of Kentucky

Kingston, Marion Josephine English Melrose, Mass.
A.B., Mount Holyoke College

Kirwan, Albert Dennis History
A.B., University of Kentucky ; LL.B., Jefferson School of Law; A.M., University of Louisville
Lewis, Frank Bell Religion Maxwelton, W. Va. A.B., A.M., Washington and Lee University; B.D., Th.M., Union Theological Seminary
Meserve, Bruce Elivyn Mathematics Portland, Maine A.B., Bates College ; A.M., Duke University
*Perry, Percival
History
Chesterfield, S. C.
A.B., Wake Forest College; A.M., Rutgers University
*Second semester only.

Rhodes, Daniel Durham Religion Rocky Point, N. C.
A.B., Davidson College ; B.D., Louisville Presbyterian Theological Scminary

Rogers, Dorothy Education Ashburn, Ga.
A.B.Ed., A.M., University of Georgia

Schafer, Thomas Anton Religion E. Liverpool, Ohio
A.B., Maryville College ; B.D., Louisville Presbyterian Theological Seminary

Shirey, William Arthur Sociology Durham, N. C.
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*Silk, Leonard Solomon Economics Atlantic City, N. J.
A.B., University of Wisconsin

Tomlinson, Muriel Dorothy Romance Languages Manchester, Com. A.B., Bates College; A.M., Duke University

Wiggins, Pauline Evelyn English Birchwood, Tenn.
A.B., University of Chattanooga

Wood, Virginia Loraine Political Science Roanoke, Va. A.B., Roanoke College ; A.M., Duke University
graduate research assistants
Bloom, Melvin Sigmund Chemistry Greenville, S. C.
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Manes, Milton Chemistry Durham, N. C.
B.S., College of the City of New York

Scheraga, Harold Abraham Chemistry Durham, N. C. B.S., College of the City of New York; A.AI., Duke University

Shivers, Joseph Clois, Jr. Chemistry Riverton, N. J.
B.S., A.M., Duke University

Weiss, Martin Joseph Chemistry New York, N. Y.
A.B., New York University

Weith, Archie James, Jr.
A.B., A.M., Duke University

Yost, Robert Stanley
B.S., Pemisylvania State College

GRADUATE ASSISTANTS
Anglin, Milton Psychology
B.S., College of the City of New York

Beaman, Mary Elizabeth Mathematics
A.B., Winthrop College

Blackburn, Lillian Ione
B.S., Duke University

Botdorf, Ruth Graybill
A.B., Susquehanna University

Cavin, William Pinkney
A.B., Wofford College

Coolidge, Cary
A.B Blue Momance Languages Nashville, Tenn.

CiB, Ben
Culbertson, Jack Arthur German Nickelsville, Va.
A.B., Emory and Henry College

Cummings, Anne Burt Stainback Psychology Pittsburgh, Pa.
A.B., Hollins College

Field, Frank Henry Chemistry Durham, N. C.

* Second semester only.
. Vame
*Futterman, Yuette B.S., Columbia University

Gibbons, Jean Woriey A.B., Texas Technological College
*Holland, Ruth
A.B., New York University

Holton, Jean Ortiz Morris A.B., Millsaps College

Hornaday, John Albert A.B., Duke University

Johnson, Natalie Kristina Romance Languages Miami, Fla. A.B., Duke University

Kantor, Simon Chemistry B.S., The College of the City of New York

Kingsbury, Ralph Norman Chemistry Milton, Mass. B.S., Northeastern University
*Knox, Norman Davis English
A.B., Swarthmore College
†MacIntosh, Fred Henry English Clemson, S. C.
A.B., University of South Carolina; A.M., Duke University

McKenzie, Emory Jariel English Lorraine, Kan.
A.B., Ottawa University

Parker, Mary Ellen Chemistry Ruanoke, Va.
A.B., Randolph-Macon Woman's College

Peters, Frank Anthony
A.B., University of Alabama

Purcell, Charles William, Jr. History Huntington, W. Va. A.B., Marshall College

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Chattanooga, Tem.
A.B., University of Chattanooga

Strain, Sara Bob Botany Rome, Ga. A.B., Shorter College
$\ddagger$ Swamer, Frederic Wurl Chemistry
A.B., Lawrence College ; A.M., University of Wisconsin

Thomas, Mary Olive English Auburn, Ala.
A.B., Agnes Scott College; A.M., University of North Carolina
$\dagger$ Thomason, Jane Taylor English Roanoke Rapids, N. C.
A.B., Woman's College of The University of North Carolina

Vingiello, Frank Anthony Chemistry
B.S., Brooklyn Polytechnic Institute

Walker, Howard George, Jr. Chemistry Westfield, N. J. B.S., Duke University.

[^36]GRADUATE SCHOLARS

Name
Barnett, Roberta Irene

Home Address
, Wors Chase, Md.
*Baxter, Joseph Ray
A.B., Berea College; A.M., Duke University

Brownlee, William Hugh Religion
Newport, Ky.
Department
hevy Chase Md
A.B., Sterling College; Th.B., Pittsburgh-Xenia Theological Seminary

Chernuchin, Vivian Economics Jamaica, N. Y.
A.B., Queens College

Clark, Ellen Mercer Latin
A.B., University of Richmond; A.M., Duke University

Elkins, Elaine Biochemistry
A.B., Wellesley College

Erickson, Edith Joan Harmon Economics Rahway, N. J.
A.B., New Jersey College for Women

Hester, William Philosophy
A.B., A.M., Emory University

Jenness, David Montgomery
A.B., Furman University
*Logan, Samuel Frank History N. Augusta, S. C.
A.B., Wofford College

McGriff, Mary Emily History Birmingham, Ala.
A.B., Duke University
$\dagger$ McLain, Robert Wayne Religion Statesville, N. C.
A.B., Berea College; S.T.B., Boston University School of Theology

Muldrow, Mary Frances Romance Languages Milledgeville, Ga.
A.B., Georgia State College for Women
*Munger, Bernard Vernon Religion Graham, N. C.
A.B., Washburn Municipal University; B.D., Chicago Theological Seminary

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A.B., Woman's College of The University of North Carolina
$\dagger$ Rhodes, Ethel Irene Truscott Religion Rocky Point, N. C. A.B., Coker College

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$\dagger$ Sample, Kathleen Botany Daytona Beach, Fla.
A.B., John B. Stetson University

Sommer, Esther Lucille History Peoria, Ill.
A.B., MacMurray College

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Topper, Pearl History Mount Vernon, N. Y. A.B., Marshall College

Weathers, Willie True
English
Aylett, Va.
A.B., Randolph-Macon Woman's College; A.M., University of Chicago
$\ddagger$ White, Helen Louise Mathematics Arlington, Va.
A.B., University of North Carolina

Young, Milla Elizabeth Romance Languages Lancaster, Ohio A.B., Hiram College

[^37]
## THE COLLEGES

## GENERAL STATEMENT

Duke University offers in Trinity College, the Woman's College, and the College of Engineering three academic degrees for undergraduate work: Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Civil, Electrical, or Mechanical Engineering.

## TRINITY COLLEGE

Trinity College is the undergraduate college of arts and sciences for the men of Duke University and is situated on the West Campus as are the College of Engineering, the Graduate School of Arts and Sciences, the School of Law, the School of Medicine, the School of Nursing, the School of Forestry, and the Divinity School.

## THE WOMAN'S COLLEGE

The Woman's College of Duke University is a college of arts and sciences within the University which provides for the instruction of undergraduate women as Trinity College provides for the instruction of undergraduate men.

## THE COLLEGE OF ENGINEERING

Duke University, through the College of Engineering, offers standard four-year courses in civil, electrical, and mechanical engineering, with an aeronautics option for mechanical engineers.

## THE LIBRARIES

The library resources of the University total 722,613 volumes, 888,879 manuscript pieces, and approximately 3,500 books on microfim. Eightyone foreign and domestic newspapers and 3,061 periodicals are received currently.

The University Library, in which the bulk of the collection is housed, is centrally located on the West Campus. The main Reference and Reading Room on the second floor contains about 5.000 volumes of important reference works and the books on reserve for senior-graduate courses. The Undergraduate Reading Room on the first floor contains a specially selected collection of approximately 2,500 books for general undergraduate reading and reference, together with the books on reserve for undergraduate courses. The Documents Roon on the second floor gives students access to the official publications of the federal and state governments. Seniors, honor students, and others undertaking special studies may be admitted to the stacks to facilitate their work. The Chemistry library
of 11,476 volumes, the Physics-Mathematics library of 11,012 volumes, the Biology-Forestry library of 32,146 volumes, the College of Engineering library of 8,761 volumes, and the Divinity School library of 37,623 volumes are housed in the buildings in which these subjects are taught to make them convenient especially to the faculty and students in these fields. The Medical library of 42,385 volumes and the Law library of 78,131 volumes are housed in the Medical and Law buildings respectively.

The Woman's College Library contains 65,702 volumes. Among these are the books most constantly needed in the undergraduate work of women students. An attractive feature of the Library is the Booklovers' Room, where on open shelves students may find interesting books in various fields. In honor of Mr. James A. Thomas, the Thomas Memorial Room was opened in December, 1942. The decorations and furnishings in this room were provided by Chinese and American friends of Mr. Thomas. It affords a quiet, attractive place for studying or reading.

Undergraduate students also have free access to the library collection of the Law School.

## NAVAL RESERVE OFFICERS TRAINING CORPS

Duke University is one of the fifty-two colleges and universities selected by the Navy in which there will be maintained permanently a Unit of the Naval Reserve Officers Training Corps. The primary objective of the Naval Reserve Officers Training Corps is to provide systematic instruction and training in essential Naval subjects for a group of selected students, so that they may be qualified and available for duty as deck officers in the United States Navy. The work supplements other courses taken in the University. Students, satisfactorily completing the required courses along with the other requirements for a bachelor's degree, are commissioned as Ensigns in the United States Naval Reserve.

Since July 1, 1943, the Naval Reserve Officers Training Corps has been maintained on a full-time, active duty status as a special wartime measure designed to furnish in the shortest possible time commissioned efficers for the Navy. During this period students selected by nation-wide examinations and from those already on duty with the Fleet have been assigned to the Unit by the Navy Department. The active duty phase of the program ends on June 30, 1946, and at that time the Naval Reserve Officers Training Corps will be transferred to a permanent peacetime plan.

The method of selecting the members of the Unit in the future, as well as their rights, duties and privileges, is yet to be prescribed by Congress. The requirements for admission to the Unit, as well as other details of the plan, will be announced and become the subject of a special bulletin as soon as they are available.

The Department of Naval Science and.Tactics is an integral part of
the University and the courses in Naval Science and Tactics are on the same level and carry the same credit toward graduation as other courses in the University. It is expected that the required course in Naval Science and Tactics will consist of 24 semester hours. Satisfactory completion of each semester's work is necessary for continuance in the Unit.

The study of navigation and other subjects included as a part of the program requires a basic knowledge of mathematics, including algebra, plane and solid geometry, and plane trigonometry.

## ADMISSION TO TRINITY COLLEGE AND THE WOMAN'S COLLEGE

Applicants may qualify for admission to Trinity College or the Woman's College as members of the Freshman Class or as students with advanced standing. Since the enrollment in the two colleges is limited, the Committee on Admissions will select the students who, in its opinion, are best qualified to benefit from the educational advantages which the colleges offer.

## APPLICATION FOR ADMISSION

Application for admission to Trinity College should be made to the Secretary of Duke University, Duke Station, Durham, North Carolina, for transmittal to the Council on Admissions. Application for admission to the Woman's College should be made to the Committee on Admissions, College Station, Durham, North Carolina. Forms of application will be sent on request.

## GENERAL REQUIREMENTS

Admission to Trinity College and to the Woman's College is dependent upon the ability, attainments, and character of the applicant. Each applicant must see that the Committee on Admissions receives a complete record of his work in secondary school or college, the required medical certificate, and satisfactory evidence of his good character and ability.

## SPECIFIC REQUIREMENTS

An applicant for admission to the Freshman Class must present at least fifteen acceptable units of secondary school credit. A unit of credit is allowed for a course of study pursued throughout an academic year at an accredited secondary school, if the course has demanded five recitations a week and the prescribed amount of work has been completed satisfactorily.

1. Twelve units must be in English, foreign language, history and social studies, mathematics, and natural science; and must include:
(a) English-3 units.
(b) Algebra-1 unit.
(c) Plane geometry-1 unit.
2. Three units may be in the subjects listed above or from those in the following table. The units indicate the maximum amount of credit acceptable in each subject:

| SUBJECT | UNITS | SUBJECT | UNITS |
| :---: | :---: | :---: | :---: |
| Agriculture | 2 | Mechanical Drawing | 2 |
| Art | 1 | Music |  |
| Commercial Subjects | 3 | Physical Geography |  |
| Economics |  | Sociology | 1 |
| Household Economics | . 2 | Woodworking, Machin | .. 2 |

Other units offered in subjects not included in this list will be considered for acceptance on the basis of full statements transmitted with the applicant's record from the school recommending him.

## ADMISSION BY CERTIFICATE

A graduate of an accredited school, who submits fifteen acceptable units of secondary school subjects, is recommended by his principal, and otherwise meets the requirements of the Admissions Committee, may be admitted without examination. This certificate must be on blanks furnished by the College and signed by the principal of the school in which the applicant completed his course.

## ADMISSION BY EXAMINATION

An applicant who presents fifteen acceptable units for admission from a nonaccredited school is required to validate these units by entrance examinations and such other tests as the College may prescribe.

## ADMISSION WITH ADVANCED STANDING

A student of good character who has completed satisfactorily at least one full year of college work in an approved college may be admitted with advanced standing. He must have fulfilled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions, and have honorable dismissal from each institution previously attended. Credit for work completed will be determined in relation to the curriculum at Trinity College or the Woman's College.

A student enrolling for the Bachelor's degree who transfers from a junior college or from a four-year college not affiliated with the Southern Association, or a similar regional association, is under all circumstances required to continue for at least one semester in Trinity College or in the Woman's College the foreign language he presents for minimum graduation requirements.

A student who has transferred from a junior college or from a fouryear college not affiliated with the Southern Association, or a similar regional association, must present laboratory notebooks in all science courses that are offered for advanced credit.

A student admitted with advanced standing will be given an average grade of " $C$ " on the semester hours with which he is credited, provided his grades warrant it. In order to make his provisional classification final, he must pass during his first year of residence not less than the equivalent of four year-courses, with an average grade of "C" or higher.

The maximum amount of credit acceptable from a junior college is sixty semester hours.

No credit is given for work completed by correspondence, and not more than six semester hours of credit are allowed for work done by extension. Any extension work accepted must be specifically approved by the Dean of the College.

## ADMISSION FOR SPECIAL WORK

Upon the approval of the Dean, a student of mature age may be admitted for special work in such courses of instruction as he is qualified to take, but not as a candidate for a degree in a regular course unless he meets all requirements for admission.

## READMISSION OF FORMER STUDENTS

A student, who, following withdrawal from College, desires to return to the College, should apply to the Dean for readmission. If a student has completed during his absence from the College any undergraduate work in another institution of approved standing, he must submit an official transcript of this work, with a statement of honorable dismissal, from that institution.

## PRELIMINARY TESTS AND EXAMINATIONS

During the orientation period all Freshmen are given placement tests in chemistry, English, mathematics, and the foreign language they are to continue. On the results of these tests and general ability tests students are assigned to the proper sections of their respective academic subjects. Physical examinations are also given.

## REQUIREMENTS FOR DEGREE OF BACHELOR OF ARTS

## GENERAL REGULATIONS

The requirements for the degree of Bachelor of Arts are designed to give the students such training in certain fundamental subjects as is essential for intelligent, educated citizens. The requirements also provide the opportunity for as wide an election as possible from courses of study which are both interesting and practically helpful in connection with vocations the students plan later to pursue.

Credit for one hundred and twenty semester hours, on which an average grade of " C " must be made, is required for the degree of Bachelor of Arts in all groups. In addition to these requirements all candidates for the Bachelor of Arts must complete, with an average grade of "C" or better, physical education to the equivalent of six semester hours. In Trinity College the physical education requirement is completed by the end of the Sophomore vear; in the Woman's College, by the end of the Junior year.

The Faculty has authorized the groups of studies below for the guidance of students in selecting the work required for graduation. A student is free to choose any group he may desire. The several groups are designed to be of special value in a chosen profession and at the same time to provide a well-balanced course of study. With the approval of the Dean a student may at any time transfer from one group to another. In such transfers, work done in one group and not prescribed in the other will count as general elective credit, but all work prescribed in the new group must be completed before the student can be graduated.

No student is permitted to take less than fourteen semester hours of work without special permission from the Dean; to take more than the normal load of work (fourteen to seventeen semester hours) unless his average grade in the preceding semester is "C" or above; or, under any conditions, to take more than nineteen semester hours of work, exclusive of required physical education.

On or before the date announced for the spring registration every student is required to designate the group in which he plans to graduate and to arrange his program of courses for the ensuing year. All students, when choosing courses, are urged to seek the advice of instructors in whose departments they expect to receive instruction. No course card is valid until it has the approval of the Dean.

## SPECIAL REGULATIONS

The following special rules applying to the selection of courses are authorized by the Faculty:

The total amount of work that a student, other than an Honors student, may take in any one department toward the Bachelor of Arts degree is limited to a maximum of thirty-six semester hours; with the exception that a student whose principal work is in the Department of English, Economics, or Romance Languages may be permitted to take additional work in subdepartments not to exceed a total in the department and the subdepartments of fifty-four semester hours.

Candidates for the degree of Bachelor of Arts whose courses of study permit may elect work from the following subjects: engineering, not to exceed eighteen semester hours; forestry, not to exceed eighteen semester hours. The courses elected in these departments must be those approved by the Council on Undergraduate Instruction as appropriate for the Bachelor of Arts degree and published in the Bulletin of Undergraduate Instruction. The classification of these courses, as they affect divisions of concentration and restricted electives, is left to the student's major adviser and to the Dean.

No Senior may take for graduation credit any course primarily open to Freshmen: and no Junior may take for graduation credit more than one course primarily open to Freshmen. A list of these courses is published in the Bulletin under "Courses of Instruction."

Not more than one course of six or eight semester hours of credit in final fulfillment of the requirements for the degree of Bachelor of Arts in Duke University may be taken in another institution of approved standing, and this course must first be approved by the head of the department concerned and by the Dean.

## MINIMUM UNIFORM REQUIREMENTS FOR ALL GROUPS

The following requirements are authorized for all groups:


In addition to the above requirements, at least the third college year of a foreign language must be completed.

English 1-2, 6 s.h.-This requirement is normally met by the completion of English 1 and 2. A Freshman whose scores on the placement tests are too low to justify his admission into English 1 is required to earn credit for English L before he may enter English 1. A Freshman who satisfies the Department of English of his superior ability in composition may substitute, however, another English course for English 1.

Natural Science, 8 s.h.-A student who does not present for entrance an acceptable unit of science must take sixteen semester hours of science for graduation.

Economics, History, or Political Science, 6 s.h.-A student who does not present for entrance two acceptable units of history (exclusive of other social science work) must take history as his required work; otherwise, he may fulfill this requirement in any one of the three subjects.

Foreign Language (third college year).-Students who begin their language requirements in college are expected to follow the sequence of courses laid down by the department whose work they take and can omit only such course or courses as may be approved both by the department and the office of the Dean. If a Freshman presents for entrance four units of Latin, he may satisfy his language requirements by taking either two years of Latin or two years of Greek. In exceptional cases, on the recommendation of the department and with the approval of the Dean, a student who has completed the second college year of a language may satisfy the requirement in language by completing the first college year of another language.

Of these minimum requirements, at least three courses, including English and foreign language, should be taken in the Freshman year, and all of them, except foreign language and religion, by the end of the Sophomore year.

These courses primarily open to Freshmen and the courses that will satisfy the requirements in history, science, and religion are listed under "Courses of Instruction."

## GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF ARTS

## GROUP I

## General

This group is based on the traditional requirement for the degree of Bachelor of Arts. Students who choose it must complete the minimum uniform requirements for graduation; forty-two semester hours in a division of concentration, exclusive of courses open primarily to Freshmen (in the Division of the Natural Sciences a maximum of eight hours of Freshman work is permitted in the forty-two hours mentioned above); twelve semester hours of restricted electives in the other divisions; and free elective work sufficient to complete, with an average grade of " C ," the one hundred and twenty semester hours necessary for graduation. The departments of instruction, for purposes of concentration, are grouped in three divisions:
Humanities: English, Fine Arts, German, Greek, Latin, Music, Philosophy, Romance Languages.
Social Science and History:-Economics, Political Science, Education, History, Religion, Sociology.
Mathematics, Psychology, and Natural Science: Botany, Chemistry, Geology, Mathematics, Physics, Psychology, Zoology.
The forty-two semester hours in the division of concentration must be distributed as follows: eighteen to twenty-four semester hours in a major department and eighteen to twenty-four semester hours in at least two other departments of the same division with a minimum of six semester hours in each department. The minimum number of hours required by the department for a major shall not include any course open primarily to Freshmen. Introductory courses above the Freshman level are to be counted or not at the discretion of the department concerned.

For purposes of concentration certain courses listed in the same de-
partment are considered as being in different departments; namely, courses in French, Italian, and Spanish. Likewise, courses in economics and business administration are reckoned as being in different departments. Also, a student taking his major work in English literature may count courses in English composition, dramatic technique, or public speaking as part of his related work in the same division.

The twelve semester hours of restricted electives must be taken in one or both of the divisions not chosen for concentration, with a minimum of six semester hours in any one department of these divisions.

Attention is called here to a special regulation governing all groups leading to the Bachelor of Arts degree which limits the amount of work a student, other than an Honors student, may take in any one department to a maximum of thirty-six semester hours, with the proviso that a student whose principal work is in the Department of English, Economics, or Romance Languages is permitted to take additional work in subdepartments not to exceed a total in the department and the subdepartments of fifty-four semester hours.

The remaining hours necessary for graduation, after the minimum uniform requirements, the division of concentration, and the restricted electives are satisfied, are open as free electives.

On or before the date announced for the spring registration every Sophomore in the General Group should designate his division of concentration and his major department, and arrange under the guidance of an instructor in the major department his program of studies for the following year. He should obtain the instructor's written approval of all courses selected in the division of concentration before submitting his program to the Dean for final action. In like manner, upperclassmen will recheck their courses in their divisions of concentration each year with representatives of their major departments.

## GROUP II

## Business Administration

This group is designed for students who enter college with the purpose of engaging in some form of business after graduation. The required work consists of the minimum uniform requirements and the courses specified below.

The following arrangement of specified courses is recommended for students electing this group.

A student planning to take the examinations to qualify as a Certified Public Accountant may with the permission of the Department substitute courses in accounting (including Economics 184) for those courses in the following arrangement of courses which are marked with an asterisk.
Freshman Year: Economics 11* (this course is recommended but not required), 6 semester hours of Mathematics.
Sophomore Year: Economics 51-52, Economics 57-58, Political Science 61-62. Junior and Senior Years: Economics 138*, Economics 143, Economics 144*, Economics 153, Economics 171-172 or Economics 105, 158, Economics 181-182, Economics 189*. Three hours of Economics courses shown in Economic Major Group I or Il*.

In addition to the courses specified above, a student in this group must elect nine semester hours from other courses in the Department.

## GROUP III

## Religion

This group is designed for students who plan to enter the ministry or other religious work as a vocation after graduation. The required work consists of the minimum uniform requirements and the courses specified below.

The following arrangement of specified courses is recommended for students electing this group:
Freshman Year: Religion 1-2, History 1-2.
Sophomore Year: Religion (6 hours), Economics 51-52 or Political Science 61-62, English Literature (6 hours).
Junior Year: Religion (6 hours), Psychology 91, English 151-152.
Senior Year: Religion* (6 hours), Sociology (6 hours), Philosophy (6 hours).

## GROUP IV

## Pre-Medical

Students qualifying for college graduation in this group must complete, in addition to the minimum uniform requirements, forty-two semester hours in a division of concentration (subject to the regulations of the General Group), twelve semester hours of restricted electives in one or both of the other divisions with at least six semester hours in one department, and certain specific requirements as noted below. These specific requirements may count as part of the divisional concentration (if the division of concentration is the Natural Sciences) or they may count as restricted electives if another division of concentration is chosen. The foreign language should be German or French, preferably the former and including German 107-108.

The normal division of concentration for students electing this group is that of the Natural Sciences, but the student may elect any one of the other two divisions for his divisional concentration. In this case, it may be necessary for him to complete more than one hundred and tiventy semester hours for his degree. If, however, the student chooses the Natural Sciences for his division of concentration, he is urged to take as much elective work as possible in the Divisions of the Social Studies and the Humanities.

Completion of English 1 and 2: Chemistry 1-2, 61-70, 151-152, Physics 51-52; and Zoology 1-2 will satisfy the minimum course recommendations of the Association of American Medical Colleges. Many medical schools advise the completion of additional courses in these and other subjects. The pre-medical student should ascertain the requirements of the particular medical school that he expects to attend.

[^38]The following arrangement of the courses in science is suggested:
Freshman Year: Chemistry 1-2, Zoology 1-2, Mathematics 7-8, or equivalent.
Sophomore Year: Chemistry 61-70, Physics 51-52.
Junior Year: Chemistry 151-152.

## GROUP V

## College Teaching

This group is designed for students who plan to do work in a graduate school and teach in college. The required work consists of the minimum uniform requirements and the work specified below.

French and German through the second year of college work.* Since one of these languages may be taken through the third year of college work to satisfy the minimum uniform requirements, only the one not taken thus must be chosen to meet the conditions of this group.

Twenty-four semester hours of work in the major subject, exclusive of work in the subject offered primarily for Freshmen; twelve semester hours of work in related subjects approved by the student's Departmental Adviser; twelve semester hours in education, philosophy, and psychology, or in any one, not including any courses in secondary or elementary school methods.

Elective work, not to be taken in the major department, sufficient to complete the one hundred and twenty semester hours necessary for graduation.

At least twelve semester hours of the work taken in the Senior year must be in courses open only to Seniors and Graduates.

## GROUP VI

## Public School Teaching

This group is designed for two classes of students: (a) those who plan to teach in secondary schools; (b) those who plan to teach in elementary schools.

The required work consists of the minimum uniform requirements and the requirements listed under one of the classes below, according to whether the student expects to teach in a secondary school or in an elementary school.

## CLASS A: SECONDARY SCHOOL TEACHING

Students in this class are required to take:
Eighteen semester hours in education of which three semester hours may be in general psychology. $\dagger$ The work in education must include three semester hours in directed observation and practice teaching, three semester hours in educational psychology, and three semester hours in secondary education.

Six semester hours, three each, in materials and methods, in two fields of high-school teaching. (By permission of the Dean's office and the Department of Education three hours of advanced work either in Educa-

[^39]tion or in one of the teaching fields may be substituted for half of this 1 equirement.)

Work in the subject matter of the two subjects the student intends to teach, sufficient to satisfy the minimum requirements as listed in the table below:
English, twenty-four semester hours, to include the six of required work in composition, six in English literature, and six in American literature.
French, eighteen semester hours, based on the usual two units for admissian.
German, Spanish, and Greek, the same requirements as for French.
History, eighteen semester hours, including six each in American, ancient and
medieval, and modern European history, and six semester hours of eco-
nomics or political science. It is recommended to prospective teachers of
history and related subjects that they take elective work in sociology,
geography, and at least a semester each in economics and political science.
Latin, eighteen semester hours based on the traditional four units for admission. Mathematics, fifteen semester hours.
Music, thirty semester hours.
Physical Education, fifteen semester hours.
Science, thirty semester hours, including elementary courses in biology, chemistry, physics, and geography or geology.
A student may prepare to teach only one high-school subject by taking a major of twenty-four semester hours in that subject (physical education excepted) in addition to the general required work in Class A, the required work in education and psychology, and the specifically required work in directed observation and materials and methods in the subject chosen. In physical education in the Woman's College the requirement for a major is thirty semester hours including three or four semester hours each of comparative anatomy and physiology.

It is recommended that the elective work, sufficient to complete the one hundred and twenty semester hours for graduation, be chosen in the two subjects the student is preparing to teach and in the Division of Social Science, provided the total amount of work taken in any department may not exceed the total allowed in Group I.

Students who are preparing to teach are advised to read carefully the certification rules of the state in which they intend to teach and to advise fully with the Dean before electing courses in subjects they are preparing to teach. They are further warned to take their professional courses in the order outlined by the Department of Education, reserving for their Senior year courses in materials and methods and in directed observation and practice teaching.

At least twelve semester hours of the work in the Senior year must be in courses open only to Seniors of to Seniors and Graduates.

## CLASS B: ELEMENTARY SCHOOL TEACHING

Students in this class conform to the general requirements of Group I. Education is treated as a major department, and the Social Science Division as the division of concentration. In addition to the general requirements of Group $I$, the following specific requirements must be met:
S.H.
3 or 6 English .....
6 or 9 .....
6 or 9
Ameography
Ameography ..... 6 ..... 6
Physical Education and Hygiene
Physical Education and Hygiene ..... 6 ..... 6

These special requirements are reckoned in each case as a part of the appropriate division of concentration. The student in Class B should begin the required sequence in Education (courses 84, 88, 101, 110) in the first semester of his Sophomore year.

The following arrangement of courses is recommended for Freshmen entering the Teaching Group. The work for the following years will be arranged by the Department of Education.

Freshman Year


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## GROUP VII

## Pre-Legal

This group is designed for students who expect to study law after graduation. The refuired work consists of the minimum uniform requirements $\ddagger$ and the courses specified below.

The following arrangement of specified courses is.recommended:
Freshman Year: Introductory course in History (1-2 if taken in the Freshman year or 51-52 if taken thereafter).
Sophomore Year: Economics 51-52, Political Science 61-62.
Junior Year: Economics 143, History 105-106, Psychology 91, and either English 151 or 152.
Senior Year: Six semester hours of Economics from courses approved for Seniors.
The electives should be chosen largely from the work offered by the following departments: Philosophy, Sociology, Economics, History, Psychology, and Political Science. The total work (required and elective) in any one department may not exceed thirty semester hours.

At least twelve semester hours of the electives in the Senior year must be Senior-Graduate courses.

## GROUP VIII

## Social Service

This group is designed for students who plan after graduation to pursue professional studies in order to engage in practical social welfare

[^40]work, such as family welfare, child welfare, public welfare, probation and parole, and similar forms of neighborhood and community work. The required work consists of the minimum uniform requirements and the courses specified below. Zoology is recommended for the required course in science.

The following arrangement of specified courses is recommended for students electing this group:
Freshman Year: History 1-2.
Sophomore Year: Economics 51-52, Sociology 91-92 or Sociology 101.
Junior Year: Philosophy ( 6 hours), Political Science ( 6 hours), Psychology 91, Sociology (6 hours).
Senior Year: Economics (6 hours), Psychology (6 hours), Sociology (6 hours).

The electives should be chosen mainly from history, economics, political science, education, sociology, philosophy, psychology, and religion.

The subjects required for the Junior and Senior years may be transposed according to the courses available in any particular year.

## GROUP IX

## Honors

Purpose: Students who have revealed their desire and demonstrated their ability to do a type of intellectual work higher than that normally required for the liberal arts degree may apply to read for Honors during their last two college years. The aim of the Honors studies is to permit qualified undergraduates to attain a knowledge, both comprehensive and intensive, of a particular field, or fields, under conditions most stimulating to individual initiative and independence.

## General Rules:

I. A student who has sixty-two semester hours of work to his credit and who has completed the minimum requirements for graduation may apply to read for Honors. A departmental committee may, however, permit students to take as much as tivelve hours of the minimum uniform requirements in the Junior and Senior years provided that these are offset by the same number of hours in related subjects taken previously in courses not open primarily to Freshmen.
II. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equivalent of sixty semester hours of work.
III. The minimum amount of work that may be taken in the major department shall be the equivalent of twenty-four semester hours, and the maximum shall be the equivalent of thirty-six semester hours.
IV. The related work, which constitutes at least two-fifths of the Honors program, that is, the equivalent of twenty-four semester hours, must be distributed among not less than two departments, unless the
departmental committee gives special permission for the student to take his related work in one department.

Departmental Honors: Honors courses are available to qualified students in the following departments: Botany, Chemistry, Economics, Education, English, French, German, Greek, History, Mathematics, Physics, Psychology, Religion, and Zoology.

An undergraduate wishing to qualify for Departmental Honors usually enters the General Group during the Freshman year. At the close of the Sophomore year he may apply to read for Honors in a particular department. The requirements for admission to candidacy for Honors vary in the different departments. The student should consult the special requirements set forth in the "Departmental Honors Program." The Departmental Committee determines the eligibility of the various applicants for Honors reading within the department.

Transfer students from colleges of approved standing may be admitted to candidacy for Honors provided they enter here as Sophomores with high records in their chosen field of work. They should consult by April 15 the Honors Adviser of the Department in which they are interested.

The work required of students in the Departmental Honors Group consists of (1) the minimum uniform requirements; (2) the program of Honors for the Junior and Senior years; and (3) elective work sufficient to complete the semester hours necessary for graduation.

Study in a Departmental Honors course always includes work in regular open courses. In both Junior and Senior years it may, and usually does, also include work under special instruction (seminarial or tutorial) and assignments of independent reading.

All candidates who complete satisfactorily the minimum uniform requirements, a Departmental Honors course, and elective work sufficient to earn the necessary hours for graduation will be recommended by the Departmental Committee to the Dean of the College for graduation with Honors.

For brief outlines of the various plans for Departmental Honors the student should see the section, "Departmental Honors Program," among the offerings of each department listed above. Students are also urged to consult the Honors Adviser of the department in which they are primarily interested. A list of these Advisers follows:

Botany: Miss Addoms<br>Chemistry: Mr. Vosburgh<br>Education: Mr. Holton<br>English: Mr. Irving<br>French: Mr. Webb<br>German: Mr. Vollmer

History: Mr. Laprade<br>Mathematics: Mr. Elliott<br>Physics: Mr. Hatley<br>Psychology: Mr. Zener<br>Religion: Mr. Myers<br>Zoology : Mr. Johnson

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

The general regulations governing the requirements for the degree of Bachelor of Science are the same as those for the degree of Bachelor of Arts. Students selecting this group must complete the following course of study :
S.H.
English 1-2 ..... 6
French and German (second college year) ..... 12-24
Mathematics ..... 6
Natural Science ..... 8
Economics, History, or Political Science ..... 6
Religion ..... 6
Major and related work ..... 48
Free electives to make a total of ..... 120

English 1-2, 6 s.h.-This requirement is normally met by the completion of English 1 and 2. A Freshman whose scores on the placement tests are too low to justify his admission into English 1 is required to earn credit for English L before he may enter English 1. A Freshman who satisfies the Department of English of his superior ability in composition may substitute, however, another English course for English 1.

French and German.-Bachelor of Science candidates must complete at least the second college year, or equivalent as determined by examination, of both French and German.

Mathematics, 6 s.h.-A candidate for the Bachelor of Science degree must complete Mathematics 7 and 8 or Mathematics 7 and 50 or the equivalent. Mathematics 50 is recommended for students who plan to take Mathematics 51-52. Mathematics 8 is recommended for those who plan not to take Mathematics $51-52$. Placement tests in algebra are administered to all entering students planning to take courses in mathematics. Students found deficient in algebra must substitute Mathematics 1 and 2 for Mathematics 7.

Natural Science, 8 s.h.-This requirement can be satisfied by courses in one of the natural sciences, namely, Botany, Chemistry, Geology, Physics, and Zoology. The courses must include laboratory work, and may not be counted as part of the major or related work.

Economics, History, or Political Science, 6 s.h.-A student who does not present for entrance two acceptable units of history (exclusive of other social work) must take a course in history ; otherwise, he has his choice of Economics, History, or Political Science. The courses that will satisfy this requirement are listed under "Courses of Instruction."

Religion, 6 s.h.-The courses that will satisfy the requirement in Religion are listed in this bulletin under "Courses of Instruction."

Major and Related Work, 48 s.h.-Major and related work consists of forty-eight semester hours in the Division of Natural Sciences. This work must be selected from the Departments of Botany, Chemistry, Geology, Mathematics, Physics, Psychology, and Zoology. The major work consists of not less than twenty-four semester hours in one department, the choice of courses being subject to the approval of the department. The major work does not include courses primarily open to Freshmen. The related work is taken in at !east two other departments and is selected subject to the approval of the major department. It may not include more than one course primarily open to Fresh-
men. A minimum of eight semester hours of the total of forty-eight must be in laboratory science. Further information concerning the requirements for the major and related work in the various departments will be found under "Courses of Instruction."

Free Electives.-In addition to the above, the student must elect sufficient courses to complete, with an average grade of " C ," the one hundred and twenty semester hours necessary for graduation.

The total amount of work that a student, other than an Honors student, may take in any one department toward the Bachelor of Science degree is limited to a maximum of thirty-six semester hours.

No Senior may take for credit any course primarily open to Freshmen, and no Junior may take for credit more than one course primarily open to Freshmen. A list of these courses is published under "Courses of Instruction."

Not more than one course of six or eight semester hours of credit in final fulfillment of the requirements for the degree of Bachelor of Science in Duke University may be taken in another institution of approved standing, and this course must first be approved by the head of the department concerned and by the Dean.

On or before the date announced for the spring registration every Sophomore in this group should select his major department in the Division of Natural Sciences and arrange under the guidance of an instructor in the major department his program of studies for the following year. He should obtain the instructor's written approval of all courses selected in the division before submitting his program to the Dean for final action. In like manner, upperclassmen will check their courses in the division each year with representatives of their major department.

## COMBINED ACADEMIC-PROFESSIONAL COURSES

The provision whereby a Senior may elect the work of the first year in a professional school of the University shall apply solely to eligible students in Trinity College or the Woman's College. The privilege of completing a combined course for the degree is conditioned upon admission to the professional school at the close of the Junior year. A student thus admitted registers as a Senior in the College and as a first-year student in the professional school.

## ACADEMIC-LAW COMBINATION

A student who has completed, with an average grade of "C" or higher, ninety-two semester hours of undergraduate work, including the minimum uniform requirements for the degree of Bachelor of Arts and the work of the Junior year in the division of concentration may, with the approval of the Dean of the College, transfer to that school and be eligible for the degree of Bachelor of Arts from Duke University upon the satisfactory completion therein of the work of the first year.

It is understood that this provision shall apply solely to eligible Duke University undergraduates, and that not less than the full first-year's work of the Law School will be acceptable for credit towards the bachelor degree.

No single discipline or program of study can be described as the best preparation for the study of law. There are various methods of approach to legal study, and the students differ with respect to the undergraduate studies by which they profit most in preparing themselves for law school.

Completion of the undergraduate work necessary to qualify for the Academic-Law Combination does not insure admission to the Duke University School of Law, nor impose any restriction whatever upon its freedom in selecting students for admission.

The student who does not desire to avail himself of the Academic-Law Combination above set forth may, nevertheless, enter the Law School when he has satisfactorily completed three years of academic study and has met the other entrance requirements of that school. In the case of veterans with good college records, military service may be substituted for one year of the three-year entrance requirement.

Students wishing information concerning admission to the School of Law are invited to consult with the Dean of that school.

## ACADEMIC-FORESTRY COMBINATION

A student who has completed with an average grade of "C" or higher the program of study given below may, with the approval of the Dean of the College, transfer to the School of Forestry and be eligible for the degree of Bachelor of Science from Duke University upon the satisfac-
tory completion of one year's work. It is understood that this provision shall apply solely to eligible Duke University undergraduates. The professional degree of Master of Forestry may be obtained on the satisfactory completion of an additional year in the School of Forestry.

The program of studies in preparation for admission to the School of Forestry is divided into four parts: (1) a group of studies required of all students; (2) courses required in a selected division of concentration; (3) additional elective courses sufficient to make a total of at least 92 semester hours of credit; and (4) summer field work in surveying and forest mensuration as described below.

The studies required of all students, of which the first four, together with six semester hours of a language, should ordinarily be taken in the Freshman year, are as follows:
S.H.
Botany 1-2 ..... 8
Chemistry 1-2 ..... 8
English 1-2 ..... 6
Engineering Drawing 1-2 ..... 4
Modern Foreign Language* ..... 12-18
Mathematics 7-8 ..... 6
Physics 1-2 ..... 8
Economics 51-52 ..... 6
Geology 51 ..... 4

At the end of the Freshman year each student shall select a division of concentration. One of the following programs of concentration is recommended:

Botany. Botany 51, 151, 156, one additional course in Botany and Zoology 1. Chemistry. Chemistry 61,70 , and 151-152; and Botany 151.
Economics. Economics $57-58$, two additional semester courses in economics, and Political Science 61-62.
A student who does not select one of the above programs must complete the work of the Junior year in a division of concentration.

Summer field work is required of all students in the School of Forestry. This program of 12 weeks, preferably to be taken upon completion of the Junior year, includes Civil Engineering S110 (Plane Surveying), 3 s.h.; Forestry S150 (Forest Surveying), 5 s.h.; and Forestry S151 (Forest Mensuration), 4 s.h.

Completion of the first three years of work toward the Bachelor of Science degree does not insure admission to the Duke University School of Forestry, nor impose any restriction whatever upon its freedom in selecting students for admission.

Students wishing information concerning admission to the School of Forestry are invited to consult with the Dean of that School.

[^41]
## COURSES OF INSTRUCTION, TRINITY COLLEGE AND THE WOMAN'S COLLEGE

Note: Courses primarily for Freshmen are numbered from 1 to 49; those primarily for Sophomores are numbered from 50 to 99; those primarily for Juniors and Seniors from 100 to 199; those primarily for Seniors and Graduates from 200 to 299. The amount of credit for each course is given in semester hours following the description of the course.

The designation (w) or ( E ) indicates that the course is to be given on the West Campus or on the East Campus. The designation e means Enginecring; L, Lave; DS, Divinity School. When this designation precedes a course number, the course is not approved for graduate credit.

Odd-numbered courses are offered in the fall semester, and even-numbered courses are offered in the spring semester. Double numbers indicate that the course is a year course and must normally be continued throughout the year if credit is received. A student must secure written permission from the instructor in order to receive credit for either semester of a year-course.

## COURSES OPEN PRIMARILY TO FRESHMEN

Art i-2
Botany 1-2
Chemistry 1-2, 3-4
Economics 11
Education 1, 4, 6, 8
English 1-2
French 1-2, 3-4
German 1-2, 3-4
Greek 15
Health Education 41

History 1-2
Latin 1-2-3, 4, 15, 16, 41, 42
Mathematics 1, 2, 3-4, 7, 8, 9-10, 15
Music 11-12
Philosophy 48
Physics 1-2
Political Science 21-22
Religion 1-2
Spanish 1-2, 3-4
Zoology 1-2

## AESTHETICS, ART, AND MUSIC

PROFESSOR KATHARINE GILBERT, CHAIRNAN; ASSISTANT PROFESSOR SUNDERLAND, DIRECTOR OF UNDERGRADUATE STUDIES IN ART; MR. MUELLER, SUPER-

VISOR OF FRESHMAN INSTRUCTION IN ART; ASSISTANT
PROFESSORS BONE, HALL, AND HULL

## AESTHETICS

FOR SENIORS AND GRADUATES
201-202. The Philosophy of Art.-Study of the various phases of the aesthetic experience and forms of beauty with analysis of examples. Particular attention will be given to recent writers on aesthetics. 6 s.h. (E)

Professor Gilbert
213-214. History of Aesthetics.-The tracing of the historical solutions of traditional problems, such as the nature of imitation, symbolism, the ugly, the sublime, and the comic; the relation of art to nature, to morals, and to economics; the relation of the particular arts to each other, the standard of taste. 6 s.h. (E)

Professor Gilbert

## ART

1-2. History of Art.-An introductory course for Freshmen, designed to help the new student in relating the different manifestations of art in each period to the civilization that produced them. Open to Freshmen only. 6 s.h. (E)

Mr. Mueller

51-52. History of Art.-An introductory course for upperclassmen, similar in content to course 1-2, but so conducted that problems of correlation among the arts become more generally the responsibility of the student. Open to upperclassmen who have not had course 1-2. 6 s.h. (E)

Mr. Mueller
53-54. Theory of Representation and Design.-A consideration of the theory of tone relations, the modes of representation, and the principles of design. No previous experience in drawing or painting is required. One lecture and four laboratory hours. Open to students who are enrolled in, or have completed, a year-course in the Department. 6 s.h. (e) Mr. Mueller

55-56. Laboratory in Design.-Training in planning and executing designs for particular places, as for example wall spaces, book covers, or illustrations. One lecture and two laboratory hours. Open to students who are cnrolled in, or have completcd, a year-course in the Department. The consent of the instructor is required. 4 s.h. (E)

Mr. Mueller
61-62. Architectural History and Design.-An introductory course in the historic development of architectural principles, and their application to elementary problems of design. No previous experience in freehand or technical drawing is required. Two lectures and three laboratory hours. Open to upperclassmen, and by exception, to freshmen who offer evidence of special preparation. 6 s.h. (E)

Assistant Professor Hall
94. American Art.-A study of the formation of a cultural tradition in the United States as seen through examples of architecture, sculpture, and painting, with some reference to the minor arts of furniture, silver, and glass. Open to upperclassmen. 3 s.h. (E)

Mr. Mueller
101. Mediaeval Architecture.-A survey of Christian architecture in the Near East and Eastern and Western Europe from the beginnings of the mediaeval style in the late classic period to its disintegration in the fifteenth century. 3 s.h. (E)

Assistant Professor Sunderland
102. Mediaeval Painting and Sculpture.-A study of painting and sculpture in Western Europe from the late classic period through the fourteenth century. 3 s.h. (E)

Assistant Professor Sunderland
103. Renaissance and Baroque Architecture: Italy.-A study of architecture in Italy from Brunelleschi to Bernini, developed through the works of individual architects and their schools. 3 s.h. (E)

Assistant Professor Hall
104. Renaissance and Baroque Architecture: Spain and the North.-An inquiry into the extension of Italian Renaissance and Baroque influence in architecture, and its modification under local conditions elsewhere in Europe. Prerequisite: 1-2 or 51.3 s.h. (E)

Assistant Professor Hall
105. European Architecture since 1700.-An analysis of the sources of contemporary European architecture in the historic revival styles and counterrevolts, technical invention and new structural materials, industrial expansion, and social planning. 3 s.h. (E)

Assistant Professor Hall
106. Architecture of the Americas.-A study of building in the Western Hemisphere from the pre-Columbian cultures to the present, with emphasis on the architecture of the United States since the Revolution. Prerequisite: 1-2 or 51. 3 s.h. (E)

Assistant Professor Hall
110. English Architecture.-A survey of architecture in Great Britain from the Roman occupation to the present. Prerequisite: 1-2 or 51.3 s.h. (E)

Assistant Professor Hall
123. Renaissance Painting: Italy.-A study of Italian painting mainly in Florence from the end of the fourteenth through the fifteenth century. 3 s.h. (E)

Assistant Professor Sunderland
124. Baroque Painting: Italy.-An analysis of the character and tendencies of seventeenth-century painting in Italy. 3 s.h. (E)

Assistant Professor Sunderland
125. Renaissance Painting: The North.-A study of painting in the Netherlands in the fifteenth and sixteenth centuries. 3 s.h. (E)

Assistant Professor Sunderland
126. Baroque Painting: The North.-A study of the character and tendencies of seventeenth-century painting in Spain, France, and the Lowlands in the seventeenth century. 3 s.h. (e) Assistant Professor Sunderland
127. Renaissance and Baroque Sculpture: Italy.-A study of Italian sculpture of the fifteenth, sixteenth, and seventeenth centuries. 3 s.h. (E)

Assistant Professor Sunderland
130. Painting since 1700.-An investigation of the development of painting from the eighteenth century through Picasso. 3 s.h. (E)

Assistant Professor Sunderland
COURSES OFFERED IN OTHER DEPARTMENTS ACCREDITED IN THIS DEPARTMENT
Greek 141-142. Greek Art.
Greek 247-248. Greek Archaeology.
Psychology 202. Psychology of Aesthetics.

## DEPARTMENTAL MAJOR

Prerequisites: 1-2, 51-52, or 61-62.
Major Requirements: 53-54, and eighteen hours in courses chosen from the departmental offerings, or from courses in other departments accredited in this Department.

## MUSIC

## THEORY

11-12. Fundamentals of Music.-The elements of harmony, rhythm, and form. The visual and aural recognition of scales, intervals, triads, and seventh chords, and their functions in relation to the system of tonality. Harmonization of melodies; development of rhythmic discrimination. A general background for advanced courses in the Department. Students will meet with the instructor in small groups an additional hour each week. Two sections throughout the year. 6 s.h. (E)

Assistant Professor Bone
73-74. Harmony.-The principles of composition from the standpoint of the composer. Proficiency in harmonization of melodies, modulation, ornamentation, and original work in the smaller forms is required. Continuation of aural training. Prerequisite: Music 11-12. 6 s.h. (E)

## Assistant Professor Hull

113-114. Polyphonic Composition.-Composition in the Gregorian plain song, the modal counterpoint of the sixteenth century, the tonal counterpoint of the early eighteenth century, and the polyphony of the late nineteenth century and of the modern period. Various polyphonic forms are used with especial attention to canon and fugue. Works of Palestrina, Purcell, Bach, Brahms, and others are studied as patterns for composition. Prerequisite: Music 11-12. 6 s.h. (E)

Assistant Professor Huli
115-116. Analysis of Form.-The evolution of the polyphonic and homophonic forms from the Middle Ages to modern times. The functions of phrases, sentences, periods, in the construction of various harmonic forms. Detailed analysis of representative works. Prerequisite: Music 11-12. 6 s.h. (E) Assistant Professor Hull

121-122. Orchestration and Conducting.-The history, technical possibilities, and orchestral use of the instruments of the modern orchestra. Instrumental and some vocal scores will be studied and arrangements made by the class. One laboratory period a week will be devoted to actual participation in or observation of the orchestra. Prerequisite: Music 11-12 or consent of the instructor. 6 s.h. (E)

Assistant Professor Hull

## HISTORY AND CRITICISM

81-82. Introduction to Musical Literature.-An historical survey of the evolution of music from ancient times to the present. An elementary study of the basic principles of form and of musical aesthetics to serve as a basis of criticism. Either semester may be taken for credit. 6 s.h. (E)

Assistant Professor Hull
131-132. Symphonic Literature.-The historical background and development of music for the orchestra. A critical and analytical study of orchestral suites, overtures, concerti, symphonies, and symphonic poems from early instrumental combinations of the seventeenth century to the present. Prerequisite: Music 81-82 or 11-12, or consent of instructor. Either semester may be taken for credit. 6 s.h. (E)

Assistant Professor Bone
141-142. Choral Literature.-A survey of choral styles of the Renaissance, Baroque, Classic-Romantic, and Modern periods. A critical analysis of representative sacred and secular forms such as oratorios, passions, masses, cantatas, anthems, laudes, motets, madrigals, ballets, chansons, glees, rounds, etc. Prerequisite: Music 81-82 or 11-12, or consent of the instructor. Either semester may be taken for credit. 6 s.h. (E)

Assistant Professor Bone

## MUSIC EDUCATION

101. Vocal Methods.-A study of materials and methods of teaching vocal music in public schools. Treatment of the child voice, rote singing, chord singing, voice testing, balance, organization, and supervision. Observation of work done in the public schools. High-school glee club literature. Prerequisite: Music 11-12. 3 s.h. (e) Assistant Professor Bone
102. Instrumental Methods.-A study of materials and methods of teaching orchestral instruments, organization, supervision. Observation of work in the public schools. Literature for band and orchestra. Prerequisite: Music 11-12. 3 s.h. (E)

Assistant Professor Bone
151-152. Fundamentals of Music for Education Students.-Primarily designed for students who desire to qualify for the State Teaching Certificate. The elements of harmony, rhythm, form, and a study of materials and methods of music teaching in the first eight grades. Not open to students who have had Music 11-12. 6 s.h. (E)

Assistant Professor Bone

## APPLIED MUSIC

Instruction in organ, piano, violin, viola, woodwind and brass instruments, and voice is available to Duke University students. Membership in the Chapel Choir, the Glee Club, Band, and Symphony Orchestra is open to those who can qualify.

| Organ |  |
| :---: | :---: |
| Piano |  |
| Violin and Viola. | ............ Mr. Robert Hull |
| Vocal Ensembles | Mr. and Mrs. J. Foster Barnes |
| Orchestra and Chamber Music | . . Mr. Robert Hull |
| Woodwind and Brass Instruments | Mr. Allan Bone |
| Band. | ...Mr. Allan Bone |

## DEPARTMENTAL MAJOR

In Music Theory:
Prerequisite: Music 11-12.
Major Requirements: Music 73-74, 81-82, 115-116, and six semester hours of general music electives.
In Music History :
Prerequisite: Music 11-12.
Major Requirements: Music 81-82, 131-132, 141-142, and six semester hours of general music electives.
In Music Education:
The Department of Music has set up the following minimum requirements within the thirty hours of credit required by the North Carolina Department of Public Instruction for the Music Teaching Certificate: Music 11-12, 6 s.h.; Music $81-82,6$ s.h.; Music 101 or 102, 3 s.h.; Music $73-74$ or $113-114,6$ s.h.; music electives, 9 s.h.

Each candidate must demonstrate his ability to play simple accompaniments and hymns at sight, and must be a member in good standing of at least one University musical organization (Band, Orchestra, Choir, or Glee Club) for a minimum of two years.

The major requirements above are in addition to the professional requirements of the North Carolina Department of Public Instruction which are common to all certificates. This certificate qualifies a person for both high-school and elementary school teaching.

For required Education courses refer to the Department of Education.

## BOTANY

> PROFESSOR BLOMQUIST, CHAIRMAN; ASSOCIATE PROFESSOR OOSTING, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR ANDERSON, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSOCIATE PROFESSOR ADDOMS, SUPERVISOR OF FRESHMAN INSTRUCTION (WOMAN'S COLLEGE) ; PROFESSORS HARRAR, KRAMER AND WOLF; ASSISTANT PROFESSOR PERRY; AND ASSISTANTS

1. General Botany.-An introduction to the structure and life-processes of seed plants and the environmental factors influencing their distribution. Laboratory, discussions, and field trips. Three two-hour periods. 4 s.h. ( $\mathrm{w} \& \mathrm{E}$ )

Staff
2. General Botany.-A survey of the plant kingdom with emphasis on reproduction, and an introduction to identification. Three two-hour periods. Prerequisite: Botany 1. 4 s.h. ( $w \& E$ )

Staff
51. Culture and Propagation of Plants.-Experimental studies of the processes involved in growth, and the application of this knowledge to the selection, growth, and propagation of plants. Prerequisite: one year of botany. 4 s.h. (E)

Associate Professor Addoms
52. Plant Identification.-Practice in the identification of local plants, especially flowering plants, and a study of the principles and rules underlying plant classification. Laboratory, lectures, and field trips. Prerequisite: one year of botany. $4 \mathrm{~s} . \mathrm{h}$. (w) Professor Blomquist
55. Morphology and Anatomy of Vascular Plants.-A comparative study of representative ferns and seed plants, including vegetative and reproductive itructures. Prerequisite: one year of botany. 4 s.h. (w)

Associate Professor Oosting
101. Principles of Heredity.-The basic principles of heredity and their significance. Lectures, three hours; laboratory, two hours; conference (attendance optional), one hour. Laboratory work includes experimental breeding of the fruit fly. May be taken as a lecture course without laboratory. Prerequisite: one (high-school or college) course in biology, botany, or zoology. High-school or college algebra recommended. 3 or 4 s.h. (w)

Assistant Professor Perry
103. General Bacteriology.-Prerequisite: one year of botany or zoology, or equivalent. 4 s.h. (w), first semester; (E), second semester.

Professor Wolf
104. The Structure and Identification of Lower Plants.-A study of representative examples of the more important groups of algae, fungi, mosses and liverworts, including collection, identification and classification of common forms. Offered in alternate years. Prerequisite: one year of botany. 4 s.h. (w)

Assistant Professor Anderson
151. Introductory Plant Physiology.-The principal physiological processes of plants, including water relations, synthesis and use of foods, and growth phenomena. Prerequisite: Botany 1, 2 or equivalent; one year of chemistry recommended. 4 s.h. (w)

Professor Kramer
156. Plant Ecology.-The principal factors affecting plants and plant communities as they exist in different environments. Laboratory, lectures, and field trips. Prerequisites: Botany 1, 2 and 52, or equivalent. 4 s.h. (w)

Associate Professor Oosting
202. Genetics.-The principles of heredity, their cytological basis, and their bearing on other fields of biology. Laboratory work involves experimental breeding of the fruit fly and interpretation of data from the breeding of plants. Offered in alternate years. Prerequisites: one year of botany or zoology, or equivalent, and college algebra. 4 s.h. (w)

Assistant Professor Perry
203. Plant Cytology.-A study of the structure and organization of plant cells in relation to growth, reproduction, and especially heredity. Offered in alternate years. Prerequisite: one year of botany. 4 s.h. (w)

Assistant Professor Anderson
204. Advanced Plant Anatomy.-The structure of vegetative and reproductive organs of seed plants, including a consideration of seedling anatomy. Specific reference is made to plants of economic importance. Offered in alternate years. Prerequisite: Botany 55 or equivalent. 4 s.h. (w)

Associate Professor Andoms
216. Botanical Microtechnique.-Studies in methods of preparing temporary and permanent microscopical slides; theory of staining; the use of the microscope, especially microscopical measurements; drawing, and photomicrography, botanical photography, and lantern slides. Prerequisite: two semesters of botany. 4 s.h. (w)

Assistant Professor Anderson
221. Structure and Classification of Fungi.-Prerequisite: two semesters of botany. 4 s.h. (w)

Professor Wolf
225-226. Special Problems.-Students with adequate training may do special work in the following fields:
a. Bacteriology, Mycology, and Plant Pathology.

Professor Wolf
b. Cytology.

Assistant Professor Anderson
c. Ecology.
d. Genetics.

Associate Professor Oosting
Assistant Professor Perry
e. Morphology and Anatomy of Higher Groups.

Associate Professors Addoms and Oosting
f. Morphology and Taxonomy of Lower Groups.

Professor Blomquist and Assistant Professor Anderson
g. Physiology. Professor Kramer and Associate Professor Addoms
h. Plant Microchemistry.

Associate Professor Addoms
i. Taxonomy of Higher Groups.

Professor Blomquist
252. Advanced Plant Physiology.-The physicochemical processes and conditions underlying the physiological processes of plants. Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 4 s.h. (w)

Professor Kramer
255. Advanced Taxonomy.-A study of the historical background of plant taxonomy, modern concepts and systems of classification, nomenclatorial problems and the taxonomy of specialized groups. Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h. (w) Professor BlomQuist
256. Field Ecology.-An ecological survey of local vegetation, including theory and practice in the use of instruments for precise habitat studies, and analysis of community and successional relationships. Offered in alternate years. Prerequisites: Botany 1, 2, and 52 or equivalent. 4 s.h. (w)

Associate Professor Oosting

## FOREST BOTANY

224. Forest Pathology.-Special reference to diseases of forest trees. Prerequisites: Botany 1, 2. 3 or 4 s.h. (w)

Professor Wolf
253-254. Dendrology.-Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 4 s.h. (w)

Professor Harrar
Related courses which may be counted toward a major in botany. Zoology 110. Introduction to Genetics. 2 s.h. (w) Assistant Professor Johnson

## NAVY V-12 COURSES

*B1 and B2. Biology I and Biology II.-Two lecture-recitation periods and two laboratory periods per week. 8 s.h.

DEPARTMENTAL MAJOR
Prerequisites: Botany 1 and 2.
Major Requirements: A minimum of twenty-one hours of work including courses 52,55 , and 104 . The remaining hours may be selected from any other courses in the Department for which the student is eligible, subject to the approval of the Departmental Adviser.

## DEPARTMENTAL HONORS PROGRAM

I. Prerequisites: Botany 1-2. A year course in each of three other sciences acceptable to the Departmental Committee. Some of these may be taken concurrently with the Honors work.
II. Honors Work:
a. Botany.

1. Scheduled courses. At least five courses (18-20 semester hours) beyond Botany 1-2.
2. Reading courses and problems, chiefly in the Senior year. Nine semester hours. In addition to scheduled courses, each Honors student will take reading courses in such fields as History of Botany and Theories of Biology ; or he may take reading courses in special fields; or he may undertake a special problem: or he may carry on both reading and a problem. This work will count

* B1 and B2 may be substituted for Botany 1-2 or Zoology 1-2.
as nine semester hours and will extend through a year at least. The student will report to his Adviser regularly for conference on this work. He may be asked to prepare written reports on the reading courses, and he must make a report on his problem.
b. Philosophy-Six semester hours.
c. Electives in Botany or in other departments, subject to the approval of the Departmental Committee.
III. General Honors Examination: In the spring semester of the Senior year, each student must pass a general examination on the entire field of his Honors work. The Examining Committee consists of the Departmental Committee and such Advisers as have been concerned with his Honors work. The student must present a written report upon his problem and such written reports upon his reading as may be required, before he is permitted to take the general examination.


## CHEMISTRY

PROFESSOR GROSS, CHAIRMAN ; PROFESSOR VOSBURGH, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR HILL, SUPERVISOR OF FRESHMAN INSTRUCTION ; PROFESSORS BIGELOW, LONDON, AND WILSON ; ASSOCIATE PROFESSORS HAUSER, HOBBS AND SAYLOR; ASSISTANT PROFESSORS BRADSHER AND BROWN ; AND ASSISTANTS
1-2. General Inorganic Chemistry.-Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. One lecture, two recitations, and three laboratory hours, throughout the year. 8 s.h. (w \& E)

Associate Professor Hill with Professor Wilson; Associate Professors Saylor and Hobbs; Assistant Professors Bradsher and Brown ; and Assistants
61. Fundamentals of Analytical Chemistry.-A study of the reactions of electrolytes in solution and of chemical equilibrium illustrated by laboratory experiments involving the techniques of gravimetric, volumetric, and colorimetric analysis. One lecture, one recitation and six laboratory hours. Prerequisites: Chemistry 1-2, and Mathematics 2 or equivalent. 4 s.h. (w)

> Associate Professor Saylor; Professor Vosburgh; Associate Professor Hobbs; and Assistants
70. Quantitative Analysis.-A study of the theory and technique of inorganic gravimetric and volumetric analysis. One lecture, one recitation, and six laboratory hours. Prerequisite: Chemistry 61. 4 s.h. (w)
131. Advanced Quantitative Analysis.-Laboratory exercises in the quantitative analysis of complex materials. Six laboratory hours. Prerequisite: Chemistry 70. 2 s.h. (w)

Professor Vosburgh and Associate Professor Saylor
151-152. Organic Chemistry.-An introduction to the study of the compounds of carbon. Both the aliphatic and the aromatic series are dealt with and the lectures are illustrated by selected laboratory experiments. Two lectures, one recitation, and three laboratory hours. Prerequisite: Chemistry 61. Course 151 is prerequisite for 152. 8 s.h. (w).

Professor Bigelolv; Associate Professor Hauser; Assistant
Professors Bradsher and Brown; and Assistants
153-154. Intermediate Chemistry Laboratory.-Special laboratory exercises of a more advanced nature than given in courses 70 and 151-152. 2 or 4 s.h. (w)

Professor Bigelow and Other Members of the Staff
[Not offered in 1946-47]

173-174. Honors Seminar.-One hour a wěek discussion based on assigned reading. Required of all candidates for Honors in chemistry in both Junior and Senior years. 2 s.h. (w)

Professor Vosburgh
215-216. Advanced Inorganic Chemistry.-A study of modern theories of valence and molecular structure; also of inorganic compounds, particularly the less common types, the colloidal state of matter and the phase rule, illustrated by suitable laboratory preparations. Prerequisites: Chemistry 70, 151-152, and 261-262. 6 s.h. (w) Professor Vosburgh and Associate Professor Hill
233. Instrumental Analysis.-Experiments in the use of physical measuring instruments in chemical analysis with special attention to optical instruments. One lecture and three laboratory hours. Prerequisites: Chemistry 70 and one year of physics. 2 s.h. (w)

Associate Professor Hobbs; Professor Vosburgh; and Associate Professor Saylor
234. Physico-Chemical Methods of Analysis.-Discussion of physicochemical principles as applied to methods of instrumental analysis, illustrated by laboratory experiments, with emphasis on methods involving electrical techniques. One lecture and three laboratory hours. Prerequisites: Chemistry 70 and 261-262; the latter may be taken concurrently. 2 s.h. (w)

> Àssociate Professor Hobbs; Professor Vosburgh; and Associate Professor Saylor
236. Theory of Analytical Chemistry.-A study of such topics as precision and errors, theories of precipitation and titration, oxidation and reduction, and others, illustrated by typical analytical methods, including some physicochemical methods. One lecture. Prerequisites: Chemistry 70 and 261-262. 1 s.h.

Professor Vosburgh
241. General Biochemistry.-A study of the composition of plant and animal tissues and of the reactions and uses of some of the more important compounds. Two recitations and six laboratory hours. Prerequisites: Chemistry 70 and 151-152. 4 s.h. (w)

Professor Wilson and Assistant
242. Biochemistry.-A continuation of 241 with special reference to the digestion and metabolism of foods. The laboratory work is chiefly the analysis of blood and urine, and may be taken separately. Two recitations (credit 2 s.h.), and six laboratory hours (credit 2 s.h.). 4 s.h. (w) Prerequisites: 241 or the permission of the Department.

Professor Wilson and Assistant
251. Qualitative Organic Analysis.-Systematic identification of organic compounds, including a study of solubilities and classification reactions. Three or six laboratory hours including an hour conference. Prerequisite: Chemistry 151-152. 1 or 2 s.h. (w) Associate Professor Hauser and Assistant
252. Advanced Organic Preparations.-A laboratory course including experiments of a more difficult type than those required on the elementary level, accompanied by oral discussions of the techniques and theories involved, and designed to round out the student's knowledge of fundamental organic processes. Three or six laboratory hours. Prerequisite: Chemistry 151-152. 1 or 2 s.h. (w)

Professor Bigelow and Assistant
253-254. Advanced Organic Chemistry.-Discussion of the theories of organic chemistry with special reference to the mechanism of reactions and the synthesis of some of the more complex compounds such as vitamins, hormones, and alkaloids. Prerequisite: Chemistry 151-152. 4 s.h.

Professor Bigelow and Associate Professor Hauser
261-262. Physical Chemistry.-Fundamentals of general theoretical chemistry illustrated by selected laboratory experiments. Two recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 1-2, and Mathematics $51-52$ or equivalent. 6 s.h. (w)

Professor Gross; Associate Professors Saylor and Hobbs

265-266. Chemical Physics. Statistical Theory, Principles and Applica-tions.-General introduction to statistical methods and applications to chemical problems; solution theory, reaction velocity, changes of state, quantum statistics, and the metallic state. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. Lectures, conferences, and assigned problems. 8 s.h. (w)

Professor London
267-268. Chemical Physics. Theoretical Aspects of, Atomic and Molecular Structure.-Theories of the chemical bond; atomic and molecular forces. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. Lectures, conferences, and assigned problems. 8 s.h. (w)

Professor London
271. Introduction to Research.-Lectures on the use of chemical literature, research methods, recording and publication of results, preparation of theses, and other topics. One lecture. 1 s.h. (w)
[Not offered in 1946-47] Professors Bigelow, Gross, and Vosburgh
273-274. Seminar.-Required of all graduate students in chemistry. One hour a week discussion. 2 s.h. (w)

> Professors Bigelow, Gross and Vosburgh; Associate Professors Hauser, Hill, Hobbs, And Saylor; Assistant Professors Bradsher and Brown

275-276. Research.-The aim of this course is to give instruction in methods used in the investigation of original problems. It is required of Seniors in the Honors group and is open to other Seniors by permission of the Director of Undergraduate Studies. Nine hours a week and conferences. 3 or 6 s.h. (w)

Professors Bigelow, Gross, London, Vosburgh and Wilson ; Associate Professors Hauser, Hill. Hobbs, and Saylor;

Assistant Professors .Bradsher and Brown

## DEPARTMENTAL MAJOR

A. For the degree of A.B.

Prerequisites: Chemistry 1-2, Mathematics 6 s.h.
Major Requirements: Chemistry 61, 70, 151-152, and 6 s.h. selected from courses 131, 233, 241, 242, 251, 252, 253-254 and 261-262.
B. For the degree of B.S.

Prerequisites: Chemistry 1-2, Mathematics 6 s.h.
Major Requircments: Chemistry 61, 70, 131, 151-152, 234, 251, 261-262. The required work in the Science Division must include Mathematics 51-52 and one year of Physics.

## DEPARTMENTAL HONORS PROGRAM

Prercquisitcs: Chemistry 61, 70; Mathematics 6 s.h., and Physics, 8 s.h.
Honors Program: Chemistry 131, 151-152. 173-174. 234, 251, 261-262, and 275-276; Mathematics through integral calculus; Physics, Botany, Geology, or Zoology, 6 s.h.; electives, subject to the approval of the Departmental Honors Committee, 20 s.h. (or enough to satisfy the requirements for graduation).

Chemistry $173-174$ is a seminar primarily for Honors students of both Junior and Senior years. The purpose is to give practice in the use of chemical literature and the oral presentation of assigned topics.

In Chemistry 275-276 an experimental research project is carried out under the direction of a member of the Staff, the object being to gain acquaintance with the aims and methods of research. A written report on the research is required.

A general examination in chemistry is given at the end of both Junior and Senior years.

## ECONOMICS AND BUSINESS ADMINISTRATION

PROFESSOR HOOVER, CHAIRMAN; PROFESSOR DE VYVER, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS BLACK, RATCHFORD, SPENGLER AND VON BECKERATH; ASSOCIATE PROFESSORS EITEMAN, HUMPHREY, LANDON, LEMERT, SMITH, AND WELFLING; ASSISTANT PROFESSORS ALLEN, DELAPLANE, SHIELDS, AND SPRINGER; DRS. BERRY AND VAN YOORHIS

The Department offers instruction in general economics, business administration, and accounting. The general course in economics affords a survey of the whole field of economic thought and lays the foundation for specialized study in various branches of the subject. Advanced courses are offered in theoretical and applied economics.

A special group of studies is provided for candidates for the Bachelor of Arts degree who are definitely looking forward to a business career at the conclusion of their college course. While this group is mainly composed of liberal rather than technical studies, it gives opportunity in the Junior and Senior years for specialized study in such subjects as money and banking, public and corporation finance, investments, railroad and water transportation, economic geography, marketing, insurance, industrial management, accounting, and business statistics.

## ECONOMICS

12. American Economic Institutions.-A survey of the main economic factors, trends, and institutions in the development of American society, including such topics as the economics of the frontier, the economic basis of regionalism, tariff policies, imperialism, capital accumulation, monopoly, modern technology and mass production, labor movements, and corporate enterprise. 3 s.h. (w) Associate Professor Smith
51-52. Principles of Economics.-6 s.h. (E \& w)
Staff
This course must be passed by all students planning to elect further courses in Economics and Business Administration.

One section of Economics 51 will be offered during the spring semester, and one section of Economics 52 will be offered during the fall semester.
103. Transportation.-Essential features, problems, and competitive positions of rail, highway, air, and inland-water transportation, with most emphasis on rail transportation. Special attention is given to the economic significance of transportation, and to cost factors, rates and their economic effects and regulations. 3 s.h. (w)
107. Conservation.-A study of the extent and distribution of our natural resources and their service in regional and national development. Emphasis will be placed upon both the natural and human factors involved in the genesis of current problems. Term reports dealing with problems of special interest to those participating will be considered. 3 s.h. (w)

Associate Professor Lemert
132. The Economic History of the United States.-A study of the agricultural, industrial, commercial, and financial progress of the United States from colonial times to the present day. Special attention will be devoted to mass production, business cycles, great fortunes, and the relationships between government and business. 3 s.h. (w)

Associate Professor Smith
138. Business Statistics.-A course in elementary statistics designed principally for students of economics and business administration. The material is also of interest to those specializing in engineering, forestry, political science, and sociology. The course deals with collection of statistical data, construction
of statistical tables and charts, and a brief study of the fundamental statistical techniques. Offered both semesters. 3 s.h. (w)

Assistant Professor Springer and Associate Professor Smith
Open to Juniors, and to Sophomores in the second semester. Not open to Seniors except with the permission of the Director of Undergraduate Studies.

No credit is given for this course to a student who takes Mathematics 124.
[Note: The attention of students who are taking, or who propose to take, courses 143, 144, or 158 is called to Mathematics 16, "Mathematics of Investment." This course is recommended as an elective for Sophomores or Juniors.]
139. Advanced Business Statistics.-This course is designed for students who wish more thorough preparation in statistics, either for use in business or to meet civil service requirements. Special emphasis is placed on index numbers, time series analysis, and correlation methods. Prerequisite: Economics 138 or the equivalent. 3 s.h. (w)

Assistant Professor Springer
153. Money, Credit and Banking.-This course begins with a study of the nature, characteristics, and functions of money, credit, and the commercial banking system. It covers also the history of commercial banking in the United States; the foundation, organization, and functions of the Federal Reserve System; the supervision and control of commercial banks; deposit insurance; and the value of money. 3 s.h. (w)

## Professor Ratchford; Associate Professor Welfling; and Assistant Professor Delaplane

154. Advanced Money and Banking.-A study of foreign banking systems, central bank credit policies, recent and current monetary and banking problems, and monetary and banking reforms. 3 s.h. (w)

Professor Ratchford and Associate Professor Welfling
155. Labor Problems.-An examination of present-day labor problems followed by an intensive study of methods used by employers and workers in meeting those problems. 3 s.h. (w)

Professor de Vyver
169. Economics of Consumption.-Economic problems of the family. Factors determining choice; commercial and legal standards for consumers' goods; consumer credit and co-operation; income and standards of living. 3 s.h. (E)
186. Latin-American Economics.-Facts and factors in the economic structure and growth of the Latin-American nations; population, labor productivity, and standards of living; problems of industry, agriculture, and mining; transportation and public utilities; monetary and fiscal policies; the migration of capital and the role of the United States as a creditor nation; economic thought and institutions. 3 s.h. (w)

Associate Professor Smith
187. Public Finance.-This is a general course in the principles of public finance. It covers the constitutional, economic, and administrative aspects of public revenues, public expenditures, public debts, and intergovernmental fiscal relations. Special attention is given to current trends and problems. 3 s.h. (w)

Professor Ratchford
189. Business and Government.-This course deals with the economics of public policy regarding such matters as business combinations, corporate organizations, industrial price policies, marketing practices, economic planning, cartels, and similar problems of governmental regulation of business. 3 s.h. (w)

Associate Professor Humphrey
199. Economic Analysis.-This course deals with resource allocation, price determination, distribution, variations in the level of employment and national income, and major problems occasioned by economic progress. 3 s.h. (w)

Associate Professor Humphrey
215. Economic Systems.-A study of alternative economic systems. In addition to an analysis of communism, anarchism, and the variants of socialism, the course will include a consideration of other proposed modifications of the existing economic order. 3 s.h. (w) May be taken only with permission of the instructor.

Professor Hoover
216. Economic Functions of the State.-A consideration of the potential economic functions of the state, with particular reference to the relation between the performance of these functions by the state and the political form of the state. 3 s.h. (w) May be taken only with permission of the instructor. Professor Hoover
217. Population, Resources, and Standards of Living.-A critical survey of the economic laws of returns and of pre- and post-Malthusian population theory ; consideration of the relation between natural increase and the laws of economic distribution and of the effects of changes in the rate of natural increase upon various classes of industry and upon employment; examination of the factors which govern population growth and of current population trends; analysis of international economic and political problems which are founded upon population pressure; consideratoin of the economic and the biological aspects of differential birth-rates. 3 s.h. (w)

Professor Spengler
218. Business Cycles.-A study of the various types of cyclical movements in industry, with special emphasis on cycle theory and methods of controlling or modifying business cycles. 3 s.h. (w)

Professor Spengler
230. Public Debts in the United States.-A study of the characteristics of public credit as shown by the experience of national, state, and local governments in the United States. Topics considered include: forms, methods, and purposes of borrowing; effects of the contraction and repayment of debts on governmental fiscal policies, the banking and credit system, and business activity; methods of controlling or limiting debts; refunding and adjustment procedures; defaults and repudiations. Prerequisite: Economics 187 or consent of instructor. 3 s.h. (w)

Professor Ratchford
231. The Economic History of Modern Europe.-A study of the economic development of Europe since the sixteenth century to the present, treating such topics as the guilds, mercantilism, money, banking, crises, the industrial revolution, the interrelationships of government and business, and the economic consequences of war. The historical backgrounds of present economic problems will be emphasized. 3 s.h. (w)

Associate Professor Smith
233. State and Local Finance.-A study of expenditures, taxation, and financial administration in state and local governments with emphasis on current problems. Special attention will be given to research methods and materials and to the financial relations between state and local governments. Prerequisite: Economics 187 or consent of instructor. 3 s.h. (w)
[Not offered in 1946-47]
Professor Ratchford
234. Federal Finance.-A study of the expenditures, revenues, and financial administration of the government of the United States, with emphasis on current problems. Special attention given to budgetary procedure, corporate and individual income taxes, and the financial relations between Federal and state governments. Prerequisite: Economics 187 or consent of instructor. 3 s.h. (w)

Professor Ratchford
[Not offered in 19:6-47]
237-238. Statistical Methods.-A study of statistical methods appropriate for dealing with problems in business and the social sciences. In addition to developing more thoroughly the subjects considered in Business Statistics, the following methods will be considered: simple, multiple, partial, and curvilinear correlation; curve fitting; probability; frequency distributions; and reliability of estimates. Prerequisite: Economics 138 or consent of the instructor. 6 s.h. (w)

Assistant Professor Springer

241-242. Value and Distribution.-This course is a critical survey of the leading contemporary explanations of price formation and of the determination of interest, rent, wages, and profits. 6 s.h. (w)
245. Problems of Modern Industrialism.-This course first surveys technological efficiency and market organization as limiting factors in the determination by industrial management of the rational requirements of plant organization. External political and social forces are then introduced into the complex to show modern industrialism as a phase of mature capitalism. Against the background of modern capitalism, the issue and trends of public policy with respect to economic organization in America and Europe are compared and appraised, with special emphasis on the problems of industrial demobilization and on industrial reconstruction after the war. 3 s.h. (w)

Professor von Beckerath
256. Labor Legislation.-A study of the relations of the state to labor problems with special reference to remedial legislation and to interference in labor disputes. Prerequisite: Economics 155, or with the consent of the instructor. 3 s.h. (w)

Professor de Vyver
260. Social Insurance.-A consideration of the economic and social problems involved in workmen's compensation laws, unemployment insurance, oldage pensions, and health insurance for workers. Particular attention will be given to the present Federal and state social security legislation. 3 s.h. (w)
[Not offered in 1946-47]
Professor de Vyver
265. International Trade and Finance.-A study of the fundamental principles of international trade and foreign exchange. Subjects covered will include international specialization, balance of payments, foreign investments, tariffs and commercial policies, exchange control, exchange rates, and international monetary problems. 3 s.h. (w) Assistant Professqr Allen
268. Competitive versus Monopolistic Enterprise.-This course discusses monopoly and certain forms of imperfect competition as disturbances of a free market economy as well as of an individualistic political system. It deals with the possibilities for remedial action by business and by judiciary and government agencies, and with the limitations and dangers of government intervention if a free society is to be preserved. 3 s.h. (w) Professor von Beckerath
280. Advanced Economic Problems.-This course is designed to afford students an opportunity to integrate the economic principles which they have acquired in specialized courses, through the application of these principles to current economic problems. Not open to graduate students. 3 s.h. (w)

Associate Professor Welfling

## BUSINESS ADMINISTRATION

## A. AcCOUNTANCY

57-58. Principles of Accounting.-Elementary principles of single proprietorship, partnership, and corporation accounting. Supervised laboratory periods will be assigned. 6 s.h. (w)

Professor Black and Assistant Professor Shields
171-172. Advanced Accounting.-Advanced accounting theory and practice applied to the managerial problems of valuation and operation in corporations, consolidations, mergers, and liquidations. Open to students who have completed Accounting 57-58. 6 s.h. (w)

Assistant Professor Shields
173-174. Auditing, Theory and Practice.-This course prepares the manager to investigate the operation of his own business, the prospective investor to determine the value of the proposition, the student to practice the public accounting profession. The first semester deals with detail and balance sheet audits and the second semester with special investigations. Problems, working papers, and reports. Prerequisite: Economics 171-172 and permission of the instructor. 6 s.h. (w) Professor Black and Assistant Professor Shields

175-176. C. P. A. Review.-Thorough practice in classroom to prepare candidates for the Certified Public Accountant examinations. The object is to train students to apply accounting principles and to work in classroom under substantially the same conditions as in the examination room. Practical accounting problems, auditing analysis, and theory of accounts. Prerequisite: Economics 171-172 and permission of the instructor. 6 s.h. (w)

Professor Black
177. Income Tax Accounting.-A study of the accounting principles inrolved in the management of business enterprise under the requirements of Federal income tax laws. Practice is given in the preparation of tax returns. Prerequisite: Economics 171-172 or permission of the instructur. 3 s.h. (w) Assistant Professor Shields
178. Accounting Systems.-The design and installation of accounting systems and the presentation of accounting reports to management in basic manufacturing industries, mercantile establishments, financial institutions, and municipalities. Prerequisite: Economics 171-172 or permission of the instructor. 3 s.h. (w)

Assistant Professor Shields
180. Government Accounting.-Accounting principles and methods used in the control and administration of governmental units. Emphasis is placed upon state, county, and municipal governments. A study is made of the accounting system of the Federal Government. Prerequisite: Economics 57-58 and permission of the instructor. 3 s.h. (w) Assistant Professor Shields

275-276. Advanced Industrial Accounting and Management.-This course traces the ways and means of executive control through statistics and industrial accountancy. Emphasis is put upon the economics of overhead costs. A complete practice set of cost accounting is worked by each student during the course. Prerequisite: Economics 171-172 and permission of the instructor. 6 s.h. (w) Professor Black and Assistant Professor Shields

## B. COMMERCE AND INDUSTRY

11. Economic Geography.-A course in regional economic geography embracing the study of the world's major geographic regions, their present and potential production of food and raw materials for manufacture, and the relationships between these factors and the development of manufacturing industries, cities, and commerce. Offered both semesters. 3 s.h. (E \& w)

Associate Professor Lemert
105. Industrial Management.-A study of the organization and management of industrial production, with emphasis upon the principles governing location and plant design, the planning and control of materials and methods, and general price policies. Offered both semesters. 3 s.h. (w)

Associate Professor Welfling
109. The Economic Geography of Latin America.-This course involves comprehensive study of the resources and people of Mexico, the West Indies, and Central and South America. Special emphasis is placed upon the possibilities and limitations of increases in trade between the United States and the leading Latin-American countries. 3 s.h. (w) Associate Professor Lemert
115. Physical Geography.-A study of geographic influences consisting of location, maps and their interpretation, climate topography, soils, minerals, bodies of water, plants, animals, and the works of man. This course is required of all students in Teaching Group, Class B, and is also recommended for those intending to specialize in foreign trade or the diplomatic service. 3 s.h. (E)

Associate Professor Lemert
116. Principles of Economic Geography.-A study of the economic resources of the world; the products of the agricultural and manufacturing inciustries: trade routes and trade centers; and the influence of geographic factors on the economic development of nations. This course is required of all students
in Teaching Groups, Class B, and is also recommended for those intending to specialize in foreign trade or the diplomatic service. Prerequisite: Economics 115. 3 s.h. (E)

Associate Professor Lemert
118. Economic Geography of the South.-A study of the agricultural, commercial, and industrial development, with special emphasis upon the expansion of Piedmont industries. 3 s.h. (w)

Associate Professor Lemert
[Not offered in 1946-47]
120. Economic Geography of the Pacific.-The physical influences, natural resources, and economic activities of Asia, Oceania, and portions of the western coasts of North and South America with special emphasis upon their relationship to present developments. 3 s.h. (w) Associate Professor Lemert
[Not offered in 1946-47]
143. Corporation Finance.-Principles and problems in the financial organization of corporations; the study of corporate securities, the management of capital, the distribution of earnings; industrial combinations; insolvency and reorganization. Offered both semesters. 3 s.h. (w)

## Associate Professor Eiteman and Others

Though not a prerequisite, Economics 57-58, Principles of Accounting, is recommended to students electing this course.

Special sections of Corporation Finance will be offered for students who have had Economics 57-58.
144. Investments.-A study of the role which the security markets play in American economic life. Attention is devoted to the various types of securities, to the mechanics of their purchase and sale, to the factors which affect and determine their market prices, and to the relationship of stock speculation to the banking system and to general prosperity. Prerequisite: Economics 5758 and 143. 3 s.h. (w)

Associate Professor Eiteman
152. Global Geography.-The subject matter involves resource patterns and world affairs, geonomic problems, geocultural problems, and geographic factors affecting geopolitical questions. No prerequisites. 3 s.h. (w)

Associate Professor Lemert
158. Insurance.-The development and basic principles of insurance. This course covers such topics as business uses, policy contracts, costs, and regulation of insurance. Life and fire insurance are emphasized. Offered both semesters. 3 s.h. (w)

Dr. Berry
168. Marketing.-The topics covered in this course include the economic importance of markets and the marketing system; marketing functions, organization, and methods, price policies; finance; speculation; market research and the planning of marketing activities; co-operative marketing; criticism of marketing and means for improvement; and regulation. 3 s.h. (w)

Associate Professor Landon
181-182. Business Law.-The fundamental principles of law as applied to common business transactions. The topics presented are: contracts, agency, bailments, sales, negotiable instruments, partnerships, corporations, and bankruptcy. For Seniors. 6 s.h. (w)

Assistant Professor Springer
184. Commercial Law for Accountants.-A review and summation of commercial law principles as they apply to accounting theory and practice. Emphasis will be placed upon the commercial law sections of the Certified Public Accountant examinations. Students are admitted to the course by permission of the instructor. For Seniors. 3 s.h. (w) Professor Black
188. Personnel Management.-A study of the fundamental principles and problems of labor management and of collective bargaining under modern industrial conditions and under existing labor legislation. Prerequisite: Economics 155 . 3 s.h. (w)

Professor de Vyver

## NAVY V-12 COURSES

BA1-2. Principles of Economics I and II.-May be substituted for Economics 51-52. 6 s.h.

BA3. Money and Banking.-May be substituted for Economics 153. 3 s.h.
BA4. Transportation.-May be substituted for Economics 103. 3 s.h.
BA5. Accounting I.-May be substituted for Economics 57. 3 s.h.
BA6. Accounting II.-May be substituted for Economics 58. 3 s.h.
BA7. Statistics I.-May be substituted for Economics 138. 3 s.h.
BA10-11. Business Finance.-Four lecture-recitation periods per week for two terms. May be substituted for Economics 143. 8 s.h.

BA12-13. Business Organization and Management.-May be substituted for Economics 105. 8 s.h.

BA15-16. Business Law.-May be substituted for Economics 181-182. 6 s.h.

BA17. Elementary Cost Accounting.-May be substituted for Economics 275. 4 s.h.

BA18. Accounting and Statistical Controls.-3 s.h.
BA19. Marketing.-May be substituted for Economics 168. 3 s.h.
DEPARTMENTAL MAJOR
A major in economics requires the following election of courses:

## A

Economics 51-52. Principles of Economics.
Economics 138. Business Statistics.
Economics 153. Money and Banking.
B
A minimum of two courses from each of the following groups:

## Group I

Economics 154. Advanced Money and Banking.
Economics 187. Public Finance.
Economics 199. Economic Analysis.
Economics 218. Business Cycles.
Economics 265. International Trade and Finance.
Group II
Economics 132. Economic History of the United States.
Economics 155. Labor Problems.
Economics 189. Business and Government.
Economics 215. Economic Systems.
Economics 217. Population, Resources and Standards of Living.

## C

Additional hours in Junior and Senior courses in Economics to total 30 hours (including Economics 51-52).

D
Related work of at least six hours selected from the following courses:
Economics 57-58. Principles of Accounting.
Economics 143. Corporation Finance.

Economics 152. Global Geography.
Economics 158. Insurance.
Economics 168. Marketing.
Note: Students who take Economics 51-52 in their Freshman year may in their Sophomore year enroll in courses in the department ordinarily open only to Juniors.

## EDUCATION

PROFESSOR HOLTON, CHAIRMAN ; PROFESSOR PROCTOR, DIRECTOR OF UNDERGRADUATE
STUDIES; ASSISTANT PROFESSOR EASLEY, SUPERVISOR OF FRESHMAN INSTRUC-
TION; PROFESSORS BROWNELL, CARR, AND CHILDS; ASSOCIATE PROFESSOR SCATES; VISITING ASSISTANT PROFESSOR VAN ALSTYNE; ASSISTANT PROFESSOR WATSON; AND ASSISTANTS
Courses in the Department of Education are designed for two groups of students: (1) students with teaching experience or others who have definitely chosen teaching as their life-work, and (2) students who desire to study the school as an outstanding social institution.

Students who do not expect to teach but merely desire an understanding of the school as part of a liberal education are advised to elect such courses as S. 54, and 105 for their introductory work in the Department and then to elect further work in accordance with their special interests. Students who expect to engage in the various phases of teaching should plan their courses in accordance with the general regulations for Groups V and VI as outlined in this catalogue. Students preparing for college teaching should elect courses in the history and philosophy of education and in educational psychology. Students in Group VI preparing to teach in elementary or secondary schools should enroll in courses 84 and 88 not later than their Junior year and are then reyuired to complete courses 101 and 110.

1. Orientation Course in Study and Study Habits.-A course for Freshmen whose high-school and other records indicate the need of help in working out a satisfactory method of study. The factors of study, the use of textbooks, note-taking from lectures and parallel readings, and applications of the factors of study to the daily problems of the student are among the matters considered. Either semester. 3 s.h. (w \& E)

Staff
6. A Study of Reading Skills.-This is a course in the psychology of reading. It is a study of individual and group problems of reading, intended to aid those who need to read more rapidly and to develop habits of reading for specific purposes. Diagnosis of reading difficulties and remedial procedure emphasized. Enrollment limited to twenty-five students. Admission by consent of instructor. Laboratory and materials fee, $\$ 2.00$. Either semester. 3 s.h. (E)

Visiting Assistant Professor Van Alstyne
8. The Learning Process.-A course in elementary educational psychology for Freshmen and Sophomores, offering practice in such learning skills as memorizing, organizing, and the like, together with an interpretation of the theoretical principles of learning. Either semester. 3 s.h. (w \& e) Staff
54. Introductory Course in History of Education.-A study of the types of educational systems and institutions evolved in Western Europe and the United States as an introduction to current educational problems. 3 s.h. (E)

Staff
68. Mental Hygiene of the School Child.-A study of personality factors as related to the adjustment and success of the school child, the foundations of motivation; typical problems of maladjustment; social heredity and its educational implications; variations in intelligence. Prerequisite: course 8 or 88. $=3 . h$. (E)

Assistant Professor Easley and Visiting Assistant Professor Van Alstyne
84. Social Foundations of Education.-This course is the first of four intended to give the student a thorough survey of the place and function of education and an understanding of the school as a social institution. It is an introductory course emphasizing those historical, philosophical, and sociological factors which explain trends in American education. Either semester. 3 s.h. (E)

Professors Holton and Proctor
Note: Courses 84, 88, 101, and 110 constitute a sequence of twelve required hours of the work in Education in Group VI of the groups of studies leading to the Bachelor's degree. Students should confer with the director of undergraduate studies of the department as to working this sequence into their schedules.
88. Psychological Foundations of Modern Education.-This course is intended to acquaint prospective teachers and administrators with those aspects of modern psychology which relate most directly to instruction and to the conduct of the school. The subject matter consists of the psychological facts respecting human development, the learning process, and mental hygiene, together with applications to the teaching process and to the guidance of the learner in the many phases of his education. First semester. 3 s.h. (E)

Professor Brownell and Visiting Assistant Professor Van Alstyne
See note following course 84 .
101. Introduction to Curriculum and Technique of Teaching.-A course presenting the application of principles of education to the problem of developing curricula for the elementary and secondary schools: preliminary discussions of the nature of education and of the psychological and cultural foundations of curriculum; a consideration in the light of educational theory of current problems of curriculum development, organization of instruction, and technique of teaching. 3 s.h. (E)

Professor Carr
See note following course 84 .
105. Introduction to Educational Sociology.-A study of social forces, processes, and values as affecting education, and the interaction of school and community. 3 s.h. (E)

Professor Childs
110. Introduction to Measurement and Research in Education.-The course is designed to give prospective teachers and administrators an elementary acquaintance with modern practices in educational measurement for both instructional and research purposes. It presents the history of modern testing and evaluation, the purposes for which measurement is used and the philosophy appropriate to each; the techniques of test construction, simple statistical procedures for refining tests and interpreting results, narking, and a brief overview of the nature and development of quantitative research in education. Students in Group VI should take Education 84 and Education 88 before taking this course. 3 s.h. (E)

Associate Professor Scates

## Sce note following course 84.

112. Methods of Teaching and Presentation of Subject Matter in the Primary Schools.-A study of materials and methods in the primary schnol subjects with special reference to reading, language, number, and the sncial studies: introduction to the psychology of the primary school hranches: practice in using educational tests. A minimum of thirty laboratory perinds of nhservation and practice teaching. Prerequisite: course 101. For Seniors only. 4 s.h. (e)

Professor Carr
A. Integrated Art in the Public School.-This course consists of three semester hours of work in materials and methods. (Required of all students rompleting requirements in Group VIB. Elementary School Teaching. of the "Groups of Studies for the Degree of Bachelor of Arts.") For Juniors and Seninrs. (e)

Mrs. Mason
[Not offered in 1946-47, unless as many as eight students enroll.]
B. Industrial Art in the Public School.-This course consists of three semester hours of work in materials and methods. (Required of all students completing requirements in Group VIB, Elementary School Teaching, of the "Groups of Studies for the Degree of Bachelor of Arts.") For Juniors and Seniors. (E)

Mrs. Mason
[Not offered in 1946-47, unless as many as eight students enroll.]
115-116. Secondary Education: Principles and Practice.-The study of the nature, scope, and methods of secondary education, emphasizing fundamentals of the teaching process and exemplifying theory by practice. Sixty hours of observation work and thirty hours of supervised practice teaching required. Students preparing to teach in the junior high school are permitted to concentrate in that field. Students must arrange their schedule to permit four hours of observation, conference, and practice teaching weekly. Since practiceteaching facilities are limited. students with superior record will be given preference in the practice teaching. No student who has not passed the work of the Junior year at Duke University with an average of at least one and onehalf quality points will be permitted to do practice work. Students who have the required average in quality points must before February 1 pass with grade of " $B$ " or better, examination in the subject they expect to teach, based upon course of study of the school in which they expect to do their practice teaching. Before entrance into practice teaching, students must complete thirty hours of observation under supervision. Their first five hours of practice must be satisfactory to the instructor directing observation and to the teacher of the class taught before they can continue the thirty hours of-practice teaching required by the coursc. For Seniors only. 6 or 8 s.h.

Professor Childs and Assistants
118. Educational Implications of Genetic Psychology.-A course tracing the development of the individual through the stages of growth and learning, with emphasis upon early and later childhood; the development of such behavior patterns as play, language, etc.; the process of socialization; and similar material of especial significance to teachers. Prerequisite: three semester hours in psychology or educational psychology. 3 s.h. (E)

Professor Brownell
122. Methods of Teaching and Presentation of Subject Matter in the Grammar Grades.-A study of materials and methods in the grammar grade subjects with special reference to reading, language, number, and the social studies; introduction to the psychology of the grammar grade branches; practice in the use of educational tests. A minimum of thirty laboratory periods of observation and practice teaching. Prerequisite: course 101. For Seniors only. 4 s.h. (E)

Professor Carr
128. Tests and Measurements in Personnel Work.-A critical study of the principles and techniques of measurement in industrial, social, and educational personnel work. The course attempts to serve three purposes: (1) to acquaint the students, as a matter of cultural interest, with the rapidly expanding field of personnel study; (2) to provide a basis of technical training to enable the student to develop himself professionally after he enters personnel work; and (3) to provide a basis for personnel vocational orientation. 3 s.h. (w) Assistant Professor Watson
131. Observation and Practice Teaching.-Open to Seniors who are enrolled in course 101. Separate work for primary and grammar grade teachers. 1 s.h. (E)

Professor Carr
132. Materials and Methods in Health Education.-Identical with Health Education 132. 3 s.h. (w) Assistant Professor Aycock
136. The Teaching of High-School English.-Identical with English 142. For Seniors only. 3 s.h. (E)
142. Children's Literature.-Students enrolled will be allowed to specialize in literature of either the primary or grammar grades. First semester. 3 s.h. (E)

Professor Carr
170. The Social and Economic Position of Women.-A course in vocational guidance for women counting as a general elective, but not as part of either a major or minor in Education or toward a North Carolina State teacher's certificate. The purpose of the course is to give the historical background of the changing social and economic position of women, the contributions made by outstanding women, and the vocational opportunities open to women. 2 s.h. (E)

Mrs. Smith
176. Materials and Methods in High-School Science.-Discussion based upon lectures and collateral reading of such topics as aims, tests for values, the curriculum, classroom procedure, course and lesson planning in secondary school science. Prerequisite: at least eighteen hours of science in college. For Seniors only. First semester. 3 s.h. (e) Associate Professor Scates
185. The Teaching of Religion and Ethics.-Identical with Religion 193; counts as elective in Education only for those students preparing to teach religion in secondary schools. 3 s.h. (w) Assistant Professor Crum
200. Introduction to the Philosophy of Education.-3 s.h. (E)

Professor Holton
203. Principles of School Administration.-Prerequisite: six semester hours of courses 103 and 88 or their equivalent. 3 s.h. (E)
[Not offered in 1946-47] Professor Procror
205. Curriculum Problems in Secondary Education.-A consideration of the aims and objectives of secondary school subjects, emphasizing practical problems of curriculum-making in the high school. 3 s.h. (E)
[Not offered in 1946-47]
Professor Childs
206. Sociological Foundations of the Secondary School Subjects.-A consideration of the aims and objectives of secondary school subjects, emphasizing problems of curriculum-making. Prerequisite: general sociology or approved work in education, including course 105. 3 s.h. (w) Professor Childs
207. Technique of Teaching.-An advanced course in the teaching process, dealing with the theory underlying sound technique and applied specifically to the work of the elementary school. 3 s.h. (E)

Professor Carr
[Not offered in 1946-47]
208A. Mental Tests and Applications.-A study of the development of intelligence testing, the concept of general intelligence, various recent applications of mental tests, and training in the giving of individual tests. Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. 3 s.h. (e) Assistant Professor Easley and Visiting Assistant Professor Van Alstyne
208B. Mental Tests and Applications.-A continuation of course 208A intended to provide experience in the administration of mental tests and in the interpretation of data. Open only to students approved by the instructor. 2 s.h. (E)

Assistant Professor Easley and Visiting Assistant Professor Van Alstyne
209. Statistical Methods Applied to Education.-A study of statistical methods of treating educational and social data designed to enable teacher or administrator to interpret and use the results of scientific investigations in education. 3 s.h. ( E )

Associate Professor Scates
212. Psychology of the Elementary School Subjects.-A study of the psychology of learning as applied to teaching the common school subjects. 3 s.h. (E) First semester.

Professor Carr
213. Problems in the Organization and Administration of Elementary School.-A study of the work of elementary school principles. 3 s.h. Second semester.

Professor Proctor
214. History of Education in the United States.-A study of the development of the American public school and the interaction of higher education and the public school. 3 s.h. (w)

Professor Holton
[Not offered in 1946-47]
215. Educational and Vocational Guidance.-A survey of the literature on guidance with special reference to secondary education; a critical study of the principles and techniques used in guidance; an attempt to locate the problems most urgently in need of solution. Prerequisite: twelve semester hours in the Department, including course 105 or course 206. Second semester. 3 s.h. (E)

Professor Childs
216. Psychological Principles of Secondary Education.-A study of adolescence and the psychology of learning as applied to teaching the principal high-school subjects. 3 s.h. (w)

Professor Childs
[Not offered in 1946-47]
218. Educational Implications of Genetic Psychology.-Special section of course 118, intended primarily for graduate students, ordinarily not offered the same year in which 118 is given. Prerequisite: six semester hours of psychology or educational psychology. 3 s.h. (E) Professor Brownell
219. Experimental Education.-The course is designed to provide training (1) in planning, (2) in prosecuting, and (3) in reporting quantitative investigations in the field of education, more especially in the field of learning and teaching the various school subjects. 3 s.h. (e) Professor Brownell
222. The Curriculum and Materials of the Elementary Grades.-A study of curriculum problems in the elementary schools. 3 s.h. (E) Professor Carr …
225. The Teaching of History and the Social Studies.-Identical with History 211. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h. (w)
[Not offered in 1946-47]
Associate Professor Manchester
227. The Psychology of Learning: Problems.-The major problems related to the learning process will be examined, with the experimental literature bearing on them. The curves of learning and forgetting, the distribution of practice, economical methods of learning, and the transfer of training will be the major topics considered. 3 s.h. (E) Assistant Professor Easley
228. The Psychology of Learning: Theoretical and Experimental.-This is a continuation of course 227. In this semester the laws of learning, the most -important explanatory principles, and the major systems of the psychology of learning will be considered. Class experiments will run throughout the semester. Prerequisite: course 227 or its equivalent. 3 s.h. (E)

Assistant Professor Easley
232. Elementary School Supervision.-A survey of supervision as a means of improving instruction and adapting the curriculum to child and community needs. 3 s.h. (E)

Professor Carr
233. Administrative Pupil-Accounting.-An advanced study of gradation and classification of pupils, with incidental attention to the keeping of records and the making of reports. The study includes a consideration of individual differences, promotions, acceleration, and retardation of pupils; the various plans for classification and gradation; interpreting the results of tests; and some practice in the computation of statistical measures. Second semester. 3 s.h. (E)

Professor Proctor
234. Secondary School Organization and Administration.-A study of the outstanding problems of secondary school organization and administration other than the problem of gradation and classification of pupils. First semester. 3 s.h. (E)

## Professor Proctor

237. Investigations in Reading.-A summary of the results of the more important scientific studies in reading; interpretation of the results in terms of aims, methods, materials of instruction, testing diagnosis, and supervision; emphasis on problems requiring further investigation. 3 s.h. (E)

Professor Carr
244. Studies in the Historical Development of Public School Administra-tion.-An advanced course devoted to the development of public school administration in the South, with especial reference to North Carolina as a type. 3 s.h. (w)

Professor Holton
[Not offered in 1946-47]
246. The Teaching of Mathematics.-Identical with Mathematics 204. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h. (e) Professor Rankin [Not offered unless enrollment justifies.]
247. Investigations in Arithmetic.-An analytical survey of investigations in arithmetic, with three purposes in view: (1) to examine the techniques employed with respect to their adequacy as means of solving the problems attacked; (2) to test the validity of the results announced and the values of these results for the teaching of arithmetic; (3) to locate further problems in arithmetic in need of scientific research. Second semester. 3 s.h. (E)

Professor Brownell
253. Legal Phases of School Administration.-A study of judicial decisions and the development of outstanding features of statute law controlling school administration, with special emphasis upon North Carolina materials. 3 s.h. (w)

Professor Holton
[Not offered in 1946-47]
254. History of Secondary Education in the United States.-A study of historical and comparative conceptions of the secondary school, changes in American life affecting the secondary school, present status of the secondary school, current tendencies toward expansion, and the problem of state and federal aid. 3 s.h. (E)

Professor Proctor
[Not offered in 1946-47]
258. Educational Measurements.-A critical study of the principles and techniques involved in measurement in education, with opportunity for individual research. Prerequisite: twelve semester hours in the Department, including a course in educational psychology. 3 s.h. (e) Associate Professor Scates
264. Recent Movements in American Education.-An intensive study of cducational thought and practice since 1900. 3 s.h. (w) Professor Holton
[Not offered in 1946-47]
266. The Teaching of High-School French.-Identical with French 218. 3 s.h. (w)

Professor Webb
294. Comparative Education: Recent Movements in European Educational Systems.-A comparative study of the school systems of the principal countries of Europe, with emphasis upon changes since the first World War. First semester. 3 s.h. (w)
[Not offered in 1946-47]

## DEPARTMENTAL MAJOR

A major in the Department of Education consists of twenty-four semester hours of work above the Freshman year, not including any work listed as pri-
marily for Freshmen, and including at least six semester hours of courses limited to Seniors or to Seniors and Graduates. Students, however, who obtain credit for courses 4 and 8 will be permitted to complete a major by taking twenty hours of additional work in the Department, provided twelve hours are courses limited to Seniors or to Seniors and Graduates. Before graduation, majors in the Department must have credit for at least one course in educational psychology, such as 8,58 , or 88 , and one course in history and philosophy of education, or in educational sociology. The remainder of their work may be elected from courses listed for Sophomores, Juniors, and Seniors, provided at least six semester hours of the course work are taken from courses listed for Seniors and Graduates, and provided that not more than six semester hours may be of courses numbered below 100 .

## DEPARTMENTAL HONORS PROGRAM

Students may become candidates for Honors in education who have passed with grade of "B" or better in their Freshman or Sophomore years six semester hours of education.

Candidates for Honors in education are required to take in the Junior year twelve semester hours in the Department and to make an average of " B " or better on this work. The remaining work in the Junior year will be chosen from related work and other electives with the consent of the Departmental Committee on Honors. In the Senior year, in addition to the equivalent of twelve semester hours of supervised reading in education, the candidate must elect with the approval of the Departmental Committee. on Honors six semester hours of work from the courses in education offered in the 200 group, on which he is required to make a grade of " B " or better and twelve semester hours of related or other elective work.

Of the supervised reading, which shall be done under the immediate supervision of members of the Departmental Committee on Honors, the equivalent of six semester hours shall be devoted to the History of Education; the remaining six semester hours shall be devoted to Educational Psychology, or Secondary Education, or Elementary Education, or Public School Administration as the student may elect and the Departmental Committee approve. In exceptional cases, qualified students may be permittted to take six semester hours of the supervised reading during the Junior year and increase the amount of course work in the Department the Senior year.

At the conclusion of the work the student shall be given an oral examination by a committee of three, consisting of the two members of the Departmental Committee on Honors in charge of his supervised reading and another member of the Department selected by the Departmental Committee.

## ENGLISH

PROFESSOR WHITE, CHAIRMAN; ASSOCIATE PROFESSOR SANDERS, SUPERVISOR OF
FRESHMAN INSTRUCTION; PROFESSORS BAUM, GILBERT, GOHDES, HUBBELL, AND IRVING; ASSOCIATE PROFESSORS BLACKBURN, MITCHELL, PATTON, AND WARD; ASSISTANT PROFESSORS BEVINGTON, HERRING, JORDAN, LEARY, SUGDEN, TALBERT, VANCE, WEST, AND WHITE; DRS. BOWMAN, RULFS, HARWELL, AND POTEAT; MESSRS. BADENOCH, BRADLEY, COX, FITZGERALD, AND SWAIN ; MRS. BEVINGTON
1-2. English Composition.-All Freshmen are required to take course 1 and course 2. (For exemptions, see Minimum Requirements, p. 54.)

Students who fail in English 1 or 2 must repeat the course in the following semester. Students in courses 1 and 2 who fail to make an average of " C " or better are strongly advised to earn credit for an additional course in English composition. 6 s.h. (E \& w)

Associate Professors Blackburn, Patton, Sanders, and Ward; Assistant Professors Bevington, Jordan, Leary, Sugden, Talbert,

Vance, and White; Drs. Bowman, Harwell, Poteat, and Rulfs; Messrs. Bradley, Cox, Fitzgerald, and Swain;

Mrs. Bevington ${ }^{\prime}$
53. English Composition.-A course in advanced composition and grammar. Emphasis is placed first on the student's mastering the fundamental principles of English grammar and the other essentials of correct writing. Weekly themes are required. 3 s.h. (w) Assistant Professor Jordan
58. English Composition.-A course in creative writing with emphasis on precision in the use of English. No textbook is used. Daily written assignments are discussed in class and are so planned as to develop the student's interest in correct English and forceful expression. 3 s.h. (w)
[Not offered in 1946-47]
Assistant Professor Jordan
65-66. English Composition.-A foundation course in imaginative writing, both prose and verse. Open to Sophomores and in special cases to Freshmen. The consent of the instructor is required. 6 s.h. (w)
[Not offered in 1946-47] Asssociate Professor Sanders
101-102. Advanced English Composition.-The course attempts to teach professional and secretarial usage and to encourage fluency and accuracy in expression. Primarily for Juniors and Seniors; open also to Sophomores approved by the Dean. 6 s.h. (w) Associate Professor Mitchell

103-104. English Composition.-A course in descriptive and narrative writing. Class discussion of students' manuscripts, supplemented by a critical evaluation of a few selected short stories and by individual conferences with the instructor. Open to Sophomores, Juniors, and Seniors. The consent of the instructor is required. 6 s.h. (w) Associate Professor Blackburn

107-108. Journalism.-The first semester is devoted to news-writing and copy-reading; the second semester to the writing of feature articles and editorials. 6 s.h. (w)

Assistant Professor Sugden
109-110. English Composition.-Although designed primarily for students who wish to continue the work of English 103-104, this course is open to others with the consent of the instructor. 6 s.h. (w)
[Not offered in 1946-47]
Associate Professor Blackburn
133. Verse-Writing.-The writing and criticism of original verse. Limited to not more than eight students, who must apply in writing to the instructor and submit original verse. Open to Seniors, Juniors, and exceptional Sophomores and Freshmen. Once a week throughout the year. 3 s.h. (E)
[Not offered in 1946-47]
Professor White

## DRAMATICS AND SPEECH

105-106. Playwriting.-In the first semester a study and analysis of the technique of the one-act play. Dramatic writing by the students is discussed in class. The second semester is an intensive period of writing and discussion, with emphasis on the development of individual style. Open to Sophomores approved by the Dean. 6 s.h. (w) Assistant Professor West
[Not offered in 1946-47]
119-120. History of the Theater.-Selected plays are read for their style, subject matter, and significance; and the history of theater buildings, scenery, acting, etc., is traced. The first semester deals with Greek and Roman, and Hindu, Chinese, and Japanese drama. The second semester covers the liturgical drama of the Middle Ages, the Miracle, Mystery, and Morality plays, and the development of modern drama from the Renaissance to Ibsen. Open to Sophomores approved by the Dean. 6 s.h. (w) Assistant Professor West
[Not offered in 1946-47]
121-122. Play Production.-The course aims to give an understanding of the basic principles of putting a play on the stage successfully. In the first semester a technical study of the crafts of play production, with laboratory work in designing and building scenery and in lighting. In the second semes-
ter, make-up, directing, costume, and stage management, with laboratory work in directing and make-up. Open to Sophomores approved by the Dean. 6 s.h. (w)

Assistant Professor IVbst
139-140. Speaking Voice.-In the first semester a study of the fundamental elements of good speech (diction, breathing, voice placement, and interpretation of meaning) with intensive drills. In the second semester the emphasis is on the finer points of interpretation, and the methods of developing a highly flexible and varied vocal style. Open to all undergraduates with the approval of the Dean. 6 s.h. (w) Assistant Professor West
150. Oral Interpretation of Literature.-A study of the methods by which the creative literary artist attains the aesthetic objectives of unity, harmony, balance, proportion, variety, contrast, and rhythm; with practice in the technique by which these effects can be communicated to an audience. 3 s.h. (w)
151. Essentials of Public Speaking.-A basic course in public speaking, designed to give the student the poise and confidence necessary to think and speak freely before an audience. Particular attention is paid to the gathering and organization of speech materials and to oral presentation. 3 s.h. (E \& w)

Mr. Badenoch
152. Argumentation.-The principles of argumentation and debating, with special emphasis upon brief-making and practice speaking. Public questions are studied as parallel work. Prerequisite: English 151. 3 s.h. (E \& w)

Assistant Professor Herring and Mr. Badenoch

## ENGLISH AND.AMERICAN LITERATURE AND LANGUAGE

55-56. Representative Writers.-The following works are studied in the first semester: Homer's Ody'ssey (T. E. Shaw's translation), Chaucer's Prologue to the Canterbury' Tales and probably two Tales, Malory's Morte D'arthur. Shakespeare's I Henry' IV and King Lear and two other plays. In the second semester: Milton's Paradisc Lost (portions) and some of the shorter poems, Swift's Gulliz'rr's Travels, Fielding's Joseph Andrcews, Boswell's Johnson, Hazlitt's Essay's, Carlyle (selections'), Hardy's Far from the MIadding Crozed. Osgood's V oice of England is used as a background text. Lectures, recitations, and frequent tests. 6 s.h. ( $\mathrm{E} \& \mathrm{w}$ )

Professor Irving; Associate Professors Blackburn, Patton, Sanders, and Ward; Assistant Professors Sugden and Vance; and Dr. Poteat
63-64. Introduction to English Poetry.-In the first semester Chaucer, Shakespeare, and Milton are studied; in the second, Pope, the Popular Ballads, the Romantic poets, and Tennyson and Browning. 6 s.h. (w)

Associate Professor Mitchell
123-124. Shakespeare. - In the first semester plays before $c a .1600$ are studied, with emphasis in class on five dramas (e.g., Richard III, Romeo and Juliet, I Henry IV, As You Like It, Twelfth Night); in the second semester plays after ca. 1600, with emphasis in class on Hamlct, Othcllo, Lcar, and Macbeth. Lectures, recitations, and frequent short tests. 6 s.h. (E \& w)

Assistant Professor Talbert
125-126. English Literature, 1789-1832.-The course begins with selections from the poetry of the Romantic forerunners. The nature and origins of the Romantic movement are studied, and its relation to the general European scene. The chief emphasis in the first semester is on the work of the older Romantics: Wordsworth, Coleridge, Southey, Scott, and Lamb. In the second semester the chief emphasis is on the work of the younger Romantics: Byron, Shelley, Keats, Leigh Hunt, Hazlitt, and DeQuincey. Informal lectures and
class discussion of assigned texts. A limited amount of outside reading is required, and also some memory work. There are about four tests each semester. 6 s.h. (e \& w) Professor White; Associate Professors Patton and Sanders; and Assistant Professor White
127-128. English Prose Literature, 1832-1900.-Lectures on the prose writers of the period; close study and discussion of selected works of Carlyle, Macaulay, Newman, Mill, and Thackeray in the first semester; and in the second semester of Arnold, Huxley, Alexander Smith, Morris, Pater, and Stevenson. Collateral reading in the novels of the period with written reports on three novels each semester. 6 s.h. (w) Assistant Professor Bevington
[ Not offered in 1946-47]
129-130. English Novel.-The work of the first semester covers the history of the novel through Scott; that of the second semester, from Dickens through Hardy. Lectures and book reports. 6 s.h. ( $\mathrm{E} \& \mathrm{w}$ )

Associate Professor Mitchell and Assistant Professor Vance
131-132. English Literature, 1832-1900.-A survey of Victorian poetry and prose. Selections from Tennyson, Browning, Arnold, Newman, Macaulay, Ruskin, the Rossettis, Morris, Swinburne, and other representative writers of the period. Lectures, discussions, tests, and a term paper each semester. 6 s.h. (w)

Assistant Professor Bevington and Associate Professor Sanders
135-136. Major Works of the Victorian Period.-Intensive study of important works not considered in detail in English 131-132, including such works as Mill's Autobiography and Liberty, Carlyle's Past and Present and Heroes and Hero W'orship, Tennyson's Idylls of the King, Browning's The Ring and the Book, Macaulay's Literary Essays, Arnoll's Culture and Anarchy and Essay's in Criticism, Morris' Earthly Paradise and News from Nowhere, Ruskin's Unto This Last, Butler's Erewhon, and Hardy's The Dynasts. Lectures, discussions, tests, reports, and one term paper during the year. 6 s.h. (w)

## Associate Professor Sanders and

Assistant Professor Bevington
137-138. American Literature.-A survey of American literature from Colonial times to the present. Selections from the works of important authors are read, from Cotton Mather to Eugene O'Neill, and whole novels by Hawthorne, Melville, James, Howells, and others. The work of the first semester ends with the Civil War period. Lectures, monthly tests, and a term paper each semester. 6 s.h. (w) Professor Gohdes and Assistant Professor Leary
142. Materials and Methods of Teaching High-School English.-This course is planned to meet the requirements of the several state departments of education and the regional educational governing bodies, and serves as part of the student's general work in practice teaching. It is required in each of the states certifying college graduates who wish to teach high-school English. 3 s.h. (E)

Assistant Professor Jordan
143-144. English Literature: Elizabethan and Seventeenth Century.-In the first semester: several Elizabethan plays, with emphasis on Marlowe; selections from the prose writers; selections from the poets, with emphasis on Spenser and Shakespeare. In the second semester : several Jacobean plays; selections from the prose writers, such as Bacon, Browne, and Milton; selections from the poetry of Jonson and Donne and their followers; Milton's early poems, Paradise Lost, and Samson Agonistes. Lectures, tests, and a term paper each semester. 6 s.h. (w)

Associate Professor Blackburn
145-146. English Poetry, 1832-1900.-In the first semester Tennyson and Browning are emphasized; in the second, Arnold, the Rossettis, Morris, Swinburne, Housman, and Hardy. Lectures, discussions, reports, and tests. 6 s.h. (E)

Associate Professor Sanders
[Not offered in 1946-47]

153-154. Comparative Literature.-Important works in European literature are read in translation and related to similar documents in English literature. In the first semester are read: nine Greek tragedies, five of Plato's Dialogues, Vergil's Aeneid, and Dante's Divine Comedy; in the second semester, Machiavelli, Cervantes, Molière, Voltaire's Candide, Goethe's Faust, Dostoievski's The Brothers Karamazov, Ibsen's plays. 6 s.h. (w) Professor Irving

155-156. Contemporary Drama.-A study of modern representative American and British drama, with special emphasis on origins, types, and styles. A few Continental plays and plays of the current and of recent seasons are included. The student learns to make critical analyses of plays and to relate them to the stage and to production. About a dozen recent plays are read or summarized in class. Students subscribe to the Theater Arts Monthly. There are occasional lectures and four to five tests each semester. Open to Juniors and Seniors, and to Sophomores recommended by the Dean. 6 s.h. (E)

Assistant Professor White
159-160. English Literary Biography.-A reading course in great biographies and autobiographies, with special emphasis on literary characters. Among those studied in the first semester are Cellini, Johnson's lives of several poets, Goethe, Southey's Life of Nelson; in the second semester, the autobiographies of Booker Washington, Anthony Trollope, Lincoln Steffens, Henry Adams. Tests and occasional lectures. 6 s.h. (w) Professor White
[Not offered in 1946-47]
165-166. The Short Story in America.-Specimens of the work of the leading short-story writers from Irving to Saroyan and Hemingway are studied. During the first semester there are also assigned readings in the short narratives of Europe from the time of Petronius to that of Balzac. The lectures begin with a survey of the antecedents of the modern short story and then concentrate on the development of the form in the United States. Monthly tests. 6 s.h. (w)

Professors Hubbell and Gohdes
167-168. English Prose, 1790-1830.-Selections from Burke, Godwin, Paine, Coleridge, Hazlitt, Lamb, Jane Austen, Scott, DeQuincey, and others. Special attention to the influence of the French Revolution and of French thought. Tests and a term paper each semester. 6 s.h. (w)

Associate Professor Patton

## FOR SENIORS AND GRADUATES

201-202. Anglo-Saxon.-In the first semester, an introduction to the language, with the reading of prose and of some of the shorter poems; in the second semester, the Beozvulf. 6 s.h. (w)

Professor Baum
203-204. Chaucer.-Reading and interpretation of the text: in the first semester the principal Canterbury Tales; in the second, the Troilus and the minor poems. A reading report and a term paper. 6 s.h. (w)

Professor Baum
205-206. Middle English.-Close study of selected texts, with attention to the development of the language and to the history of the literature from 1200 to 1400 . A term paper each semester. 6 s.h. (w) Professor Baum [Not offered in 1946-47]

207-208. English Literature, 1400-1550.-A survey of the period with a study of some of the special problems. $6 \mathrm{~s} . \mathrm{h}$. (w)

Professor Baum
[Not offered in 1946-47]
209. English Literature Other than Drama, 1550-1625.-A study of the principal authors (Sidney, Spenser, Donne, Bacon) and the prevailing types (sonnet, pastoral, epigram, etc.). Lectures, written and oral reports, and a term paper. 3 s.h. (w)

Professor Gilbert
210. English Literature Other than Drama, 1625-1700.-The Metaphysical Poets, Cowley, Dryden, Butler, and the minor poets of the Restoration; and the prose of Browne, Burton, the Character Writers, Cowley, Dryden, Halifax, and Temple. Lectures and short reports. 3 s.h. (w)

Associate Professor Ward
215-216. Elizabethan Drama.-Careful study of one major dramatist (Jonson or Beaumont and Fletcher) and extensive reading in the other writers (Heywood, Ford, Massinger, Marlowe, Middleton) with emphasis on the nature and qualities of their work in its historical background. Exposition of plays, reports, and a term paper each semester. 6 s.h. (w)

Professor Gilbert and Assistant Professor Talbert
219-220. The Eighteenth Century.-Swift, Pope, Defoe, Addison, Steele, and others are studied in the first semester; in the second, Gray, Johnson, Boswell, Goldsmith, the letter writers, and the early Romantic poets. Lectures, oral reports, and a term paper each semester. 6 s.h. (w)

Professor Irving
221-222. English Literature of the Early Nineteenth Century.-A survey cf the principal writers and literary monuments from 1798 to 1830 ; in the first semester principally Wordsworth, Coleridge, and Lamb; in the second, Shelley, Byron, Keats, and Hazlitt. Occasional lectures, frequent classroom discussions of reading assignments, written and oral reports, and a term paper each semester. 6 s.h. (w)

Professor White
223-224. English Literature of the Later Nineteenth Century.-Some of the most important works of the period are discussed in class; the background is filled in by lectures and assigned reading. The first semester is devoted chiefly to Carlyle, Dickens, Thackeray, Tennyson, and Browning; the second semester to Arnold, Ruskin, Pater, George Eliot, Meredith, the Pre-Raphaelites, and Swinburne. A term paper each semester. 6 s.h. (w) Professor Baum
[In 1946-47 only 224 will be offered, in the second semester.]
227. Literary Criticism.-A study of the Greek and Roman critics, in chronological order but with emphasis on their permanent value rather than on the mere history; also the Continental and English critics to about 1700. Lectures, reports, and a term paper. 3 s.h. (w) Professor Gilbert
[In 1946-47 this course will be offered in the second term.]
229-230. American Literature, 1800-1870.-The writers emphasized in the first semester are Emerson, Thoreau, and Hawthorne ; in the second semester, Poe and Melville. In the first semester some attention is given also to Edwards, Franklin, Bryant, Longfellow, Holmes, Whittier, Lowell, and Parkman; and in the second semester, to Byrd, Jefferson, Freneau, Brown, Irving, Cooper, Kennedy, Simms, Timrod, and Lincoln. An oral report and a term paper each semester. 6 s.h. (w)

Professor Hubbell
231-232. Special Studies in American Literature.-An intensive study of Emerson's essays and poems, in the first semester; and in the second, of Whitman's Leaves of Grass, with some examples of his prose. Lectures', discussions, with one test and one term paper each semester. 6 s.h. (E)
[Not offered in 1946-47]
Professor Gohdes
233-234. American Literature since 1870.-Selected works of the chief writers of the period, including Whitman, Lanier, Mark Twain, James, Howells, Emily Dickinson, Crane, Dreiser, and others. The lectures deal with the social background and with the careers of the leading authors. One test and one term paper each semester. 6 s.h. (w)

Professor Gohdes

235-236. History of American Drama.-The development of the theater and of dramatic literature in America: in the first semester to 1825 , in the second to 1870 . Emphasis will be placed on the drama as a reflection of the philosophical and social influences which affected American writing in other fields. 6 s.h. (w)

Assistant Professor Leary
237. English Drama, 1642-1800.-The Heroic Play and the Comedy of Manners of the Restoration period; and the important plays, serious and comic, of the eighteenth century. Lectures, class discussions, and short reports. 3 s.h. (w)

Associate Professor Ward
247-248. American Literature of the Colonial Period. -6 s.h.
Assistant Professor Leary
269-270. Southern Literature.-The principal writers discussed during the first semester are Byrd, Jefferson, Wirt, Kennedy, the Cooke brothers, Legaré, Simms, Timrod, Hayne, Longstreet and other humorists, and the poets of the Civil War. Considerable attention is paid to the historical and cultural background and to Northern and British authors who wrote about the South. An oral report and a term paper are required each semester. 6 s.h. (w)

Professor Hubbell
[In 1946-47 only 269 will be offered, in the second term. 3 s.h.]

## NAVY V-12 COURSES

E1-2. English I and II.-Three discussions and writing periods each week for two terms. May be substituted for English 1-2. 6 s.h.

E3-4. English III and IV.-A study of notable contributions to the literature of ideas about man in his social relations. 6 s.h.

E5. English Literature.-An introduction to the major works of English literature. 3 s.h.

E6. American Literature.-An introduction to the major works of American literature. May be substituted for English 137. 3 s.h.

For E6 one of the following is a prerequisite: E3-4, E55 or 56, or E123 or 124. E3 was offered March-July, 1944.

## DEPARTMENTAL MAJOR

All majors in English will center their work around one of five period courses. One additional English course will be closely related to this period course and one will not. Related work will be chosen carefully to support wherever possible the body of knowledge acquired in the English courses. Teachers in charge of the period courses will act as an advisory board for majors and assist them in the choice of English courses, related work, and electives.

## Prerequisites: English 1 and 2.

Requirements for the Major: A major in English consists of twenty-four semester hours of credit distributed as follows: Si.x hours must ordinarily be devoted to either English 55-56 or English 63-64; six hours to one of five designated period courses (English 143-144, 219-220, 125-126, 131-132, or $137-$ 138) ; six hours to a course or courses contiguous with or closely related to the period course chosen; and six hours to a course or courses not contiguous with or closely related to the period course chosen. At least six hours of these must be drawn from courses the material of which is predominantly English literature written earlier than 1800. Courses in Comparative Literature, Composition, Dramatics, and Speech may be counted as related work. So far as possible, students' programs will be made up of complete year courses.

## FORESTRY

Students without a Bachelor's degree who are preparing for work in forestry as a profession should take the courses outlined under the AcademicForestry Combination (see pages 65-66). However, with the consent of the instructor in charge, certain forestry courses may be elected by students in other curricula provided they have had adequate preparation (see Bulletin of the School of Forestry).

Members of the Sophomore, Junior, and Senior classes may elect the following course:
52. Principles of Forestry.-An introduction to forestry emphasizing the economic and social importance of forests and their influence on stream flow, water supply, soil, and erosion; brief studies of individual trees and the life history of forests and their reproduction, treatment, and protection; principal forest regions, and timber trees of United States; brief history of forestry in America and present-day forestry agencies. Work consists of lectures, assigned readings, and reports. 2 s.h. (w) Associate Professor Thomson

## GEOLOGY

## ASSOCIATE PROFESSOR BERRY

Note: The courses in Geology are given on both the Navy and Woman's College schedules, but all courses meet on the West Campus except 64 which meets on the East Campus only.
51. General Geology.-This course is designed to give a general view of the surface features of the earth, their origin, structure, and materials. Illustrative materials are studied in the laboratory. Excursions are made to neighboring points where the principles of the science are studied in the field. Three one-hour lectures or recitations and one three-hour laboratory. 4 s.h. (w)

Associate Professor Berry
52. General Geology.-This course is designed to give some knowledge of the chief events of the earth's history. Excursions will be made to suitable neighboring localities. Three one-hour lectures or recitations and one threehour laboratory. Prerequisite: Geology 51. 4 s.h. (w)

Associate Professor Berry
53. Physiography.-A detailed study of the processes at work on the land surface and the topographic forms produced by them under different climatic conditions. This course includes practice in the interpretation of topographic maps. Three one-hour lectures or recitations and one three-hour laboratory. Given both semesters but not open to students with credit for Geology 51. Limited to twenty-four students. 4 s.h. (w) Associate Professor Berry
64. Map Reading and Construction.-The use of map scales, azimuths, meridians, and parallels, methods of location, interpretation of topographic maps with three weeks of practical instruction in the field. This course is planned to enable the student to understand maps, and as an introduction to possible work with cartography divisions of airlines and planning departments. Two hours of lecture and three hours of laboratory each week, given both semesters. 3 s.h. (E)

Associate Professor Lemert
101-102. Mineralogy.-This course is devoted to a study of the fundamentals of crystallography and the crystal groups, using crystal models and crystallized minerals. Followed by the systematic study of about 175 important minerals. Determinative work includes exercises on sight recognition, indentification by blowpipe, and other physical and chemical tests. Excursions will be made to neighboring mineral localities. Three two-hour periods. Prerequisite: Chemistry 1-2 (can be taken concurrently). 8 s.h. (w)

Associate Professor Berry
151. Economic Geology.-Study of world distribution, geologic occurrence, and uses of important mineral deposits. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisite: Geology 101-102. 4 s.h. (w)

Associate Professor Berry
152. Introductory Paleontology.-Systematic study of invertebrate paleontology, dealing mainly with generic characters of the fossil invertebrates and their use in identifying and correlating geologic formations. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisites: Geology 51, 52, and Zoology 1. 4 s.h. (w)

Associate Professor Berry

## DEPARTMENTAL MAJOR

Prerequisites: None for Geology 51. Chemistry 1-2 for Geology 101-102; Zoology 1 for Geology 152.

Major Requirements: Geology 51, 52, 101-102, 151, 152.

## GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN; ASSISTANT PROFESSOR MAXWELL, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR WILSON, SUPERVISOR OF FRESHMAN INSTRUCTION ; PROFESSOR KRUMMEL; DR. SHEARS
All courses except Elementary and Intermediate German may be taken for one semester only, when circumstances make it advisable.

1-2. Elementary German.-6 s.h. (E \& w)
Assistant Professor Wilson and Staff
3-4. Intermediate German.-6 s.h. (E \& w)
Professor Krummel and Staff
51-52. Third-Year German.-For Freshmen and Sophomores primarily. A transition course between Intermediate German and the literary and scientific courses of the 100 and 200 groups. 6 s.h.

101-102. Elementary German.-For Juniors and Seniors primarily. 6 s.h. (w) This course proceeds more rapidly than German 1-2.

Assistant Professor Maxwell
103-104. Intermediate German.-For Juniors and Seniors primarily. 6 s.h. (w) This course proceeds more rapidly than German 3-4.

Courses 107 to 214 will be offered on the East or West Campus as the necessity for them arises. Several courses in the 100 and 200 group will be offered in 19.46-1947.

107-108. Scientific and Medical German.-The German language as used in the various contemporary sciences. 6 s.h. (w)

Professor Krummel; Assistant Professors
Wilson and Maxifell
109-110. German Prose Fiction.-Origin and development of the German novel with special emphasis on the nineteenth century. 6 s.h.

Professor Krummel
111-112. Introduction to the Classic Drama.-Selected dramas from Lessing, Goethe and Schiller. 6 s.h.

Assistant Professor Wilson
113-114. Nineteenth-Century German Poetry.-In the first semester the lyric is studied and in the second semester the ballad. 6 s.h.

Assistant Professor Wilson
115-116. German Drama of the Nineteenth Century.-A study of leading dramatists from Kleist to Hauptmann. 6 s.h.

Professor Krummel
117-118. German Conversation.-A course in writing and speaking German for properiy qualified students. 6 s.h.

119-120. German Literature in English Translation.-The great epochs in German literature studied through English translations. 6 s.h.

Professor Vollmer
121-122. Schiller.-A study of his life and works in relation to the culture of the eighteenth century. 6 s.h.

123-124. Modern German Short Story.-Development and technique of the novelle. 6 s.h.

Dr. Shears
125-126. Contemporary German Literature.-A study of representative works of the twentieth century. 6 s.h.

Dr. Shears
127-128. Survey of Nineteenth-Century German Literature.-Representative selections from all important literary schools from Romanticism to Contemporary Realism. 6 s.h.

Professor Vollmer
201-202. Goethe.-A study of Goethe's life and works, with special emphasis upon the broader aspects of his ever-widening interests and literary activities. 6 s.h.

Professor Krummel
203-204. Leibnitz to Romanticism.-Eighteenth-century German literature in its relation to contemporary European philosophy. 6 s.h.

Professor Vollamer
205-206. Middle High German.-The language and literature of Germany's first classical period. 6 s.h.

Professor Vollmer
207-208. German Romanticism.-The course covers the entire field of German romanticism from 1800 to 1850.6 s.h.

Professor Vollmer
209-210. Kleist, Grillparzer, and Hebbel.-The dramatic development in Germany after Schiller. 6 s.h.

Professor Krummel
211-212. Heinrich Heine and Young Germany.-Heine's life and thought, culminating in the Jungdeutschland Movement. 6 s.h. Professor Vollamer

213-214. Literature of the Empire, 1871-1914.-A study of the literature of this period as determined particularly by the philosophical, social, political, and religious factors. 6 s.h.

Professor Vollmer

## NAVY V-12 COURSES

Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language 3-4 may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses. DEPARTMENTAL MAJOR

1. Prerequisites: German 1-2 and 3-4.
2. Major Requirements: Twenty-four hours in the German Department. Twelve of these must be selected from the 200 courses. The remaining twelve may be selected from German 51-52 and any courses in the 100 group except 101-102, 103-104, and 119-120.

## HONORS IN GERMAN

Prerequisites:

1. For admission to candidacy for Honors in German, a student must have begun the study of the language not later than the Freshman year in college.
2. A student who has completed at least twelve semester hours of college German by the end of the Sophomore year with a grade of "A" or "B" (equivalent courses in secondary schools or in other colleges may be presented as substitutes) is eligible to apply to the Departmental Committee for permission to read for Honors in German.

General Rules:
I. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equivalent of sixty semester hours of work.
II. Work in the German Department: The amount of work taken in the German Department shall be the equivalent of thirty-six semester hours. Of this the work done in the Honors tutorials shall count twelve hours, six hours for the Junior year and six hours for the Senior year. The comprehensive examinations at the end of the Senior year are counted as part of this twelve semester hours credit.
III. Related Work: The related work, which constitutes at least two fifths of the Honors program, that is, the equivalent of twenty-four semester hours, must be distributed among not less than two departments, unless the Departmental Committee gives special permission for the student to take his related work in one department.
IV. General Honors Examinations: In May of the Senior year the candidate will be given a general written examination, conducted by his Adviser, on his Honors Reading. A general oral examination, conducted by the Departmental Committee and presupposing a general knowledge of the development of German culture and civilization and a practical ability in the use of the German language, will also be conducted in May.

## GOVERNMENT

See courses listed under Political Science.

## GREEK

## DR. ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION ; ASSISTANT PROFESSORS TRUESDALE AND WAY

Courses 15, 121-122, 141-142, and 131 are entirely in English and require no knowledge of the Greek language. The purpose in offering them is to give a wider circle of students some conception of the debt which modern civilization owes to the Greeks.

## 1-2. Course for Beginners.-Open to all students. 6 s.h. (w \& E) <br> Assistant Professor Way and Dr. Rose

53-54. Xenophon.-Anabasis, Books I-IV. Open to students who have completed course 1-2. 6 s.h. (w \& E) Dr. Rose

105-106. Homer.-Iliad, Books I-III. Plato.-Apology and Crito. Open to students who have completed courses 1-2 and $53-54$ or their equivalents. 6 s.h. (w \& E)

Dr. Rose
107-108. Euripides.-Medea. Sophocles.-Oedipus Tyrannus. Aristophanes. Clouds. Open to students who have completed the required preliminary work. 6 s.h. ( w \& E )

Assistant Professor Way
15. Mythology.-A study of Greek mythology and the use made of it in art and English literature. No knowledge of the Greek language is required. Open to Freshmen as an elective in either semester. 3 s.h. (w \& E)

Assistant Professor Truesdale and Dr. Rose
115-116. Sight Reading in Greek.-Three hours per week through the year. 4 s.h. (w) Assistant Professor Way and Dr. Rose

117-118. Greek Prose Composition.-The character of this course is determined by the needs of the students who elect it. 3 s.h. (w)

Dr. Rose

121-122. Greek Literature in English Translation.-The purpose of this course is to give a general survey of the life and civilization of the Greeks, especially to those who have never studied the language but wish to become acquainted with some of the choicest portions of the literature by the use of translations. It is, however, open as an elective to all Juniors and Seniors, whether they know Greek or not. First, the Iliad and the Odyssey are read in translation and illustrated with stereopticon views of the excavations and discoveries at Troy and other cities of the Aegean age; then, many of the extant plays of the three great tragic poets are studied in English translation. 6 s.h. (w \& E)

Assistant Professor Truesdale and Dr. Rose
Students may elect course 122, whether they have taken course 121 or not.
141-142. Greek Art. Lantern lectures designed to provide a comprehensive survey of the development of Greek sculpture and Greek architecture in all periods. The course is opened by a preliminary account of Egyptian, Mesopotamian, and Aegean backgrounds. Open to Seniors, Juniors, and (by arrangement) Sophomores. No knowledge of Greek is required. 6 s.h. (E)

Assistant Professor Way
Students may elect course 142, whether they have taken course 141 or not.
131. History of Greece.-The history of the Greek world from the Late Bronze Age to the Macedonian conquest. Open to Seniors, Juniors, and (by arrangement) Sophomores. No knowledge of Greek is required. 3 s.h. (w \& E) Assistant Professor Way

203-204. Homer.-Odyssey. Pindar and Bacchylides. 6 s.h. (w) Assistant Professor Way

207-208. Greek Orators.-Selected speeches. 6 s.h. (w) $\begin{gathered}\text { Assistant Professor Way }\end{gathered}$
209-210. Plato.-Symposium, Protagoras, and parts of the Republic. 6 s.h. (w) Assistant Professor Way
Only one of the three year-courses for Seniors and Graduates (203-210), listed above, is offered each year.
243. Athenian Topography.-The topography and monuments of ancient Athens. 3 s.h. (w)

Assistant Professor Way
244. Greek Epigraphy.-Lectures on the history of the alphabet and the development of the local Greek alphabets, followed by extensive reading of inscriptional texts in facsimile. 3 s.h. (w) Assistant Professor Way
245. Greek Dialects.-A linguistic study of transliterated inscriptions illustrative of the major Greek dialects. The interrelations of the dialectal forms are examined with reference, where possible, to their origin in proethnic Greek. 3 s.h. (w)

Assistant Professor Way
246. Greek Historical Inscriptions.-The more valuable historical inscriptions are read in chronological order and interpreted in their general bearing upon the course of Greek history. 3 s.h. (w) Assistant Professor Way

247-248. Greek Archaeology.-Advanced course in the general field for Seniors and Graduates, comprising architecture, sculpture, vases, and the minor arts. 6 s.h. (w)

Assistant Professor Way
Of the courses numbered from 243 to 248 only two semester-courses are offered each year.
257. Social and Cultural History of the Hellenistic World from Alexander to Augustus.-Lectures, readings, and discussions. 3 s.h. (w)

Professor Rogers

## NAVY V-12 COURSES

Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language 3-4 may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses.

## DEPARTMENTAL MAJOR

Prerequisites: Greek 1-2.
Major Requirements: A candidate for a major in Greek must complete twenty-four semester hours, including the following courses: Greek 53-54, 105106, 107-108, 117-118, and 131.

## DEPARTMENTAL HONORS PROGRAM

For admission to candidacy for Honors in Greek the student must have completed Greek 1-2 and 53-54 or their equivalent.

Candidates for Honors must complete the following program of work:
(a) Greek 105-106, 131, 141-142, 107-108, 122, and 117-118.
(b) Four year-courses in related departments.
(c) The Honors Reading. This is tutorial work in which the student is required to read assigned portions of Greek literature by himself, to write papers on topics related to his reading, and to meet the Honors Adviser in weekly conferences for the discussion of the literature that he is reading independently. For the Honors Reading a credit of nine semester hours is given.

Students who enter the University with advanced standing in Greek take higher courses in the language than those listed above.

At the end of the Senior year candidates for Honors must pass a comprehensive examination in writing on the subject-matter covered by their studies in Greek.

Graduates of Duke University may attend the American School of Classical Studies at Athens, Grcccc, without charge for tuition, and are eligible to compete for the fellowships that arc offered annually by the School. These consist of two fellowships in Grcek archacology and one in the language, literature, and history of ancient Greccc, each with a stipend of $\$ 1,300$. They are awarded mainly on the basis of examinations held in the beginning of February of each year.

## HEALTH AND PHYSICAL EDUCATION trinity college and the college of engineering

MR. CAMERON, DIRECTOR; MESSRS. AYCOCK, BURGER, CALDWELL, CARD (INACTIVE), CHAMBERS, COOMBS, COX, DEAN, GERARD, HAGLER, HENNEMIER, hill, LEWIS, MONTFORT, PERSONS, POTTER, WADE

## REQUIRED PHYSICAL EDUCATION FOR MEN

Six hours of credit in physical education, with an average grade of "C," must be completed for graduation. Three hours a week through the Sophomore year are needed to fulfill this requirement. All students must enroll in physical education until they have completed the requirement.

All students are required to take a medical and physical examination before registering. Those who reveal pronounced physical deficiencies are excused from regular courses in physical education and are required to take the course entitled "Individual Corrective Activities." Students assigned to this work continue to take it until they have been pronounced reasonably sound. Thereupon, they withdraw from this course and register in the regular physical education course. A student may take from one to eight semesters of this special work. Students without defects may elect to take any four courses they
choose. In general, these activities fall in one of three groups: those developing physical efficiency; those affording competitive contests; and those occupying recreative or leisure time. Since a student is not allowed to take the same course twice, he covers four courses in the two years of required work.

Students may receive physical education credit for participation in Freshman and varsity intercollegiate sports.

A regulation uniform, consisting of shirt, trunks, supporter, socks and sweat clothes, will be furnished each student upon payment of the Equipment and Recreation Fee and Laboratory Fee (see pages 167 and 168). Each student is required to provide rubber-soled shoes.

## PHYSICAL EDUCATION CLASSES

1-2. Basketball. $-11 / 2$ s.h.
3-4. Boxing.- $11 / 2$ s.h.
5-6. Individual Corrective Activities.- 1 I/2 s.h.
7-8. Handball. -1 1/2 s.h.
9-10. Softball.- 1 1/2 s.h.
11-12. Soccer Football.-1 $1 / 2$ s.h.
13-14. Swimming. $-11 / 2$ s.h.
15-16. Touch Football.-1 $1 / 2$ s.h.
17-18. Tennis.- $11 / 2$ s.h.
19-20. Tumbling Stunts.- $11 / 2$ s.h.
21-22. Postural Training.-1 $1 / 2$ s.h.
25-26. W restling. $-11 / 2$ s.h.
27-28. Apparatus Stunts.-1 $1 / 2$ s.h.
49. Lacrosse.-1 $1 / 2$ s.h.

55-56. Individual Corrective Activities.-1 $1 / 2$ s.h.
59. Baseball. $11 / 2$ s.h.

61-62. Golf.-1 $1 / 2$ s.h.
63-64. Advanced Tennis.-1 $1 / 2$ s.h.
65-66. Advanced Apparatus.-11/2 s.h.

Mr. Caldwell
Mr. Potter
Mr. Aycock
Mr. Gerard
Mr. Hennemier
Mr. Gerard
Mr. Persons
Mr. Gerard
Mr. Cox
Mr. Card
Mr. Aycock
Mr. Potter
Mr. Card
Mr. Potter
Mr. Aycock
Mr. Coombs
Mr. Hagler
Mr. Cox
Mr. Montfort

## INTERCOLLEGIATE ATHLETIC SPORTS

| FRESHMEN | VARSITY |
| :---: | :---: |
| 30. Baseball.-1 $1 / 2$ s.h. | 70. Lacrosse.-11/2 s.h. |
| 32. Basketball. $-11 / 2$ s.h. | 80. Baseball.-11/2 s.h. |
| 37. Football.-11/2 s.h. | 82. Basketball.-11/2 s.h. |
| 38. Football.-11/2 s.h. | 83. Basketball.-11/2 s.h. |
| 41. Cross Country.-1 $1 / 2$ s.h. | 87. Football.-11/2 s.h. |
| 42. Swimming. $1 \mathrm{I} / 2$ s.h. | 88. Football.-1 1 /2 s.h. |
| 44. Tennis.-1 $1 / 2$ s.h. | 90. Golf.-11/2 s.h. |
| 46. Track.-11/2 s.h. | 91. Cross Country.-1 $1 / 2$ s.h. |
| 48. Wrestling. $-11 / 2$ s.h. | 92. Tennis. $-11 / 2$ s.b |
| 50. Lacrosse. $-11 / 2$ s.h. | 93. Soccer Football.-11/2 s.h. |

VARSITY
94. Swimming.-11/2 s.h.
95. Track. $-11 / 2$ s.h.
96. Track. -1 I $/ 2$ s.h.
98. Wrestling. $-11 / 2$ s.h.

## ELECTIVES IN PHYSICAL EDUCATION

Students in Group VI A may elect fifteen semester hours from the courses offered below. Six semester hours may be elected from the courses listed under Special Methods in Physical Education and nine semester hours may be elected from the courses listed under Theory and Practice in Physical Education.

These courses are arranged to meet the increasing demand for teachers who are qualified to coach and teach physical education. These courses should be selected with the advice of the Director of Undergraduate Studies in order to meet the needs of the individual.

## SPECIAL METHODS IN PHYSICAL EDUCATION

163. Athletic Coaching in Secondary Schools.-Theory and practice in the fundamentals of coaching baseball and track. Prerequisites: courses 30 or 80 and $21-22$ or 46 or 96 or their equivalent. Open to Sophomores, Juniors, and Seniors. 3 s.h.

Mr. Coombs and Mr. Chambers
164. Athletic Coaching in Secondary Schools.-Theory and practice in the fundamentals of coaching football and basketball. Prerequisites: courses 37 or 87 and 1-2 or 32 or 82 or their equivalent. Open to Sophomores, Juniors, and Seniors. 3 s.h.

Mr. Cameron and Mr. Gerard

## THEORY AND PRACTICE IN PHYSICAL EDUCATION

65. History and Principles of Physical Education.-A study of the objectives and principles upon which physical education is based. The history of physical education is studied in order to show the changes in objectives, principles, and methods and as an aid in the interpretation of trends. Open to Sophomores, Juniors, and Seniors. 3 s.h. Mr. Aycock and Mr. Gerard
66. Recreational Leadership.-Combative contests, games, mass athletics, supervision of community recreation. Open to Sophomores, Juniors, and Seniors. 3 s.h.

Mr. Gerard
173. Individual Gymnastics.-The diagnosis of abnormal cases, including overweight, underweight, post-operative, postural, and flat-foot cases, with the prescription of exercise for their correction. Open to Sophomores, Juniors, and Seniors. 3 s.h.

Mr. Аycock
182. The Administration of Health and Physical Education in Secondary Schools.-Presents the everyday problems that arise in the experience of the teacher of health and physical education. Open to Juniors and Seniors. 3 s.h. Mr. Aycock and Mr. Gerard
187. School Programs of Physical Education.-Open to Juniors and Seniors. 3 s.h.

Mr. Gerard
190. Protective Practices in Physical Education.-A study of safety measures including training and first aid. Open to Juniors and Seniors. 3 s.h. Mr. Chambers

## NAVY V-12 COURSES

Navy V-12 courses may be substituted for required physical training.

WOMAN'S COLLEGE
ASSOCIATE PROFESSOR GROUT, CHAIRMAN; MRS. BERRY, MRS. BOOKHOUT, MISS Leivis, Miss little, Miss mCkee, miss van tuyl, and miss weeks

## PHYSICAL EDUCATION ACTIVITIES

Six hours of credit in physical education, with an average grade of "C," must be completed for graduation. Two hours a week through the Junior year are needed to fulfill this requirement.

All students are given a physical and medical examination upon entering and at intervals throughout their college course. Classes in individual gymnastics and light sports are arranged for those who should not take the more active work.

For information concerning gymnasium costumes and fees refer to pages 165 and 168.

October to December: Badminton, bowling, diving, golf, hockey, recreational sports, riding, soccer, swimming, tennis, volleyball.

December to March: Badminton, basketball, body mechanics, bowling, folk and square dancing, social dancing, modern dance, rhythm fundamentals, fencing, individual gymnastics, life saving, swimming.

March to May: Archery, badminton, bowling, diving, fencing, golf, life saving, modern dance, riding, softball, swimming, tennis, track and field activities.

## PHYSICAL EDUCATION THEORY

Students in Group VI A may receive academic credit for all courses listed below.

Students in Group VI B may receive academic credit for Physical Education 102, Health Education 41 and 112.

Students in all groups may receive credit for Physical Education 105-106, 108, 114, and Health Education 41, 112, and 115.
101. History and Principles of Physical Education.-An historical survey of physical education stressing the relation between the types of activity developed and the social and political ideals of different nations and periods. A study of the principles upon which physical education is based. Analysis of successful teaching in physical education. 2 s.h. (E)

Associate Professor Grout
102. The Teaching of Physical Education in Elementary Schools.-A study of methods and materials used in teaching physical education to children; includes discussion on the theory of physical education, and practice in teaching elementary school activities. Required of women students in Group VI B. 3 s.h. (E)

Miss Weeks
103. Group Games of Low Organization.-Childhood rhythms and games of low organization. Required of students preparing for full-time teaching of physical education. 2 s.h. (E)

Miss Weeks
[Offered every other year alternating with P.E. 107.]
105-106. Methods and Materials in Recreation.-A course intended to familiarize students with recreation activities and methods of organizing groups in these activities. Laboratory work includes practical leadership experience with a recreational club or group in a city organization. General fields covered are: Social Activities, Music Activities, Folk and Square Dancing, Games and Sports, Arts and Crafts, Drama Activities, Nature and Outing Activities. Open to Juniors and Seniors without prerequisite. A year course meeting five periods per week throughout the year. 6 s.h. (E)

Miss McKee
107. The Teaching of Rhythmic Activities.-Theory and practice in different types of rhythms and dancing. Stress is laid on those types suitable for school use. 2 s.h. (E)

Miss Lewis
[Offered every other year alternating with P.E. 103.]
108. Problems in Community Recreation.-A study of the historical development of organized recreation; recent trends and theories in recreation; qualifications and preparation for leadership; recreational interests of different age groups ; the administration of playgrounds and community centers, including the study of local and state recreation departments. Open to Juniors and Seniors without prerequisite. 3 s.h. (E)

Miss McKee
114. Kinesiology.-A study of the muscles, bones, and joints concerned in physical exercise. Analysis of fundamental movements with emphasis on the development of normal posture and efficient body movement. Required of students taking the 30 hour major in physical education. Prerequisite: Zoology 1 and 2, and Zoology 53. 3 s.h. (E)

Miss Litile,
118. Orthopedic and Remedial Physical Education.-The study of body mechanics, corrective exercise and massage. Purpose and technique of physical examination and evaluation of results. 2 s.h. (E) Miss Littre
119. Organization and Administration of Physical Education.-Curriculum building in physical education. A study of state and city programs. Tests and measurements in physical education. Co-ordination of health education and physical education. Administrative problems of the high-school teacher and public school supervisor. Plans and equipment for gymnasia and playgrounds. 2 s.h. (E)

Associate Professor Grout
181-182. Methods and Materials in Physical Education.-A course in the theory and practice of teaching and officiating in games and sports. Laboratory hours arranged to provide practice on the field and in the gymnasium. 4 s.h. (E)

Miss Lewis and Staff
185-186. Advanced Methods and Materials in Physical Education.-A continuation of 181-182. Required of Seniors preparing for full-time teaching in physical education. 4 s.h. (e) Miss Lewis and Staff

## HEALTH EDUCATION

41. Personal Health Problems.-A study of health problems from the point of view of the student in college and as a member of society. Prerequisite for students preparing to teach physical education. Either semester. 3 s.h. (E)

Mrs. Berry
112. School Health Problems.-An introduction to school health problems from the point of view of the classroom teacher. This course includes physical inspection of school children, communicable disease control, teacher health, school plant, safety, and healthful classroom procedures. Required of all students in Group VI B and of all students preparing to teach physical education in secondary schools. 3 s.h. (E)

Mrs. Berry
115. Community Health Problems.-A course designed to acquaint the student with problems in community health. Subjects to be considered include environmental health hazards and their control, methods of community attack on specific diseases and disorders, health problems specific to certain groups, and official and nonofficial agencies concerned with public health. Prerequisite: Health Education 41.3 s.h. (E)

Mrs. Berry

## REQUIREMENTS FOR TEACHING HEALTH AND PHYSICAL EdUCATION in PUblic schools

The following requirements have been set up for students in Group VI A who wish to qualify as full-time or part-time teachers of Health and Physical Education. These requirements meet the standards of the North Carolina

Department of Public Instruction for certification in Health and Physical Education and of most of the other states represented in the student body. Students preparing to teach in any state are advised to check with the department as to specific requirements.

Prercquisites: Zoology 1-2, Health Education 41.
Thirty semester hours, including Physical Education 101, 103, 107, 114, 118 , 119, 181-182, 185-186, Health Education 112 and Zoology 53, 151.

Education Requirements: Consult Department of Education.
Students preparing to teach physical education and health on a part-time basis only are advised to take at least the following program:

Prerequisitc: Health Education 41.
A minimum of fifteen semester hours including Physical Education 101, 103, 107, 119, 181-182, Health Education 112.

Education Requirements: Consult Department of Education.

## HISTORY

PROFESSOR LAPRADE, CHAIRMAN; ASSOCIATE PROFESSOR NELSON, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANTT PROFESSOR HAMILTON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BALDWIN, CARROLL, CLYDE, LAN NING, AND SYDN゙OR; ASSOCIATE PROFESSORS CURTISS, MANCHESTER, ROBERT, AND WOODY; ASSISTANTT PROFESSORS ACOMB, NICHOLS, QUYNN, ROPP, AND STILL; DRS. FERGUSON, PARKER, AND WATSON; MESSRS. LONG AND VAN DUSEN
The undergraduate courses in history are designed to afford (1) an introduction to the study of history and acquaintance with the contemporary scene by a consideration of the history of the modern world; (2) a more intensive study of general American history; (3) opportunities for more advanced study of phases of American, English, European, Hispanic-American, Russian, and Eastern history which interest the teachers and students.

Course 1-2 or $51-52$ or an equivalent is a prerequisite for all other courses; courses 91 and 92 are prerequisite for courses 114, 121-122, 153-154, 207-208, 209-210, 215-216, 263-264, 265-266. Sophomores who took only one semester of course 1-2 in the Freshman year may be admitted to courses 91 and 92, 63, or 67-68, provided they made a grade of " B " or above on the semester taken. Courses offered for Seniors and Graduates are limited to twenty-five students: Juniors may not elect them without special permission from the Department and the Council on Graduate Instruction. Sophomores must obtain permission of the instructor in order to be admitted to courses numbered above 100 ; students who are not fully qualified Sophomores will not be admitted to these courses.

1-2. Historical Background of the World Today.-An introduction to the study of modern history with special reference to the issues in the present world. The work in the first semester, covering the period 1500-1871, deals with such topics as the revolt from the Roman Church, the commercial revolution and the early expansion of Europe into Asia and America, the balance of power and the rise of national states, the French Revolution and Napoleon, the industrial revolution, the Holy Alliance and the New World, the inification of Italy and the German Empire. In the second semester attention is given to such subjects as the Western infiltration of eastern Asia and the rise of Japan, the partition of Africa, Latin America and the rise of the United States as a world power, national rivalries and alliances preceding the first World War, the consequences of the peace and the rise of the totalitarian states, the second World War and its aftermath. 6 s.h. (w \& E)

Sophomores and Juniors may not be admitted to this course. Courses 1 and 2 are each offered in both semesters. Either semester may be counted separately
as an elective but not as fulfiling the minimum uniform requirements or as a basis of further work in history.

Associate Professors Curtiss, Manchester, and Nelson; Assistant Professors Acomb, Hamilton, Nichols, and Ropp; Drs. Ferguson, Parker and Watson
51-52. Historical Background of the World Today.-An introductory course for Sophomores, Juniors, and Seniors dealing with the topics indicated in the description of course 1-2. 6 s.h. (w \& E)

Professor Laprade and Associate Professor Curtiss [Not open to Freshmen or to students who have had course 1-2.]
63. Naval History and Elementary Strategy.-After a review of earlier periods, attention is given to the rise of sea-power and its importance in more recent times and to naval actions, especially in the two World Wars. This course is primarily intended for students in the N.R.O.T.C., but is open as an elective to all qualified students. It is usually given in both semesters. 3 s.h. (w)

Assistant Professor Ropp
67-68. The Background of Modern European Civilization.-The work in this course deals with salient features of the history of the peoples of Europe and adjacent areas from the period of the earliest, written records to the formation of the European States-system (c. 1648). Particular attention is paid to the correlation of economic and social activities with religious, artistic, and intellectual developments. While intended primarily for Sophomores, the course is open also to qualified Juniors and Seniors. 6 s.h. (E)

## Associate Professor Nelson

91. Political and Social History of the United States to 1865.-A general study of the development of the United States, covering the period from the Revolution through 1865. 3 s.h. (w \& E)

Associate Professor Robert; Assistant Professors Acomb and Still; Dr. Watson and Mr. Van Dusen
92. Political and Social History of the United States since 1865.-Reconstruction: the rise of the United States as an industrial nation and a world power; the social, economic, and political implications of participation by the United States in the world wars of the twentieth century. 3 s.h. (w \& E)

Associate Professor Robert; Assistant Professors Acomb ann Still; Dr. Watson and Mr. Van Dusen
Note: In courses 91 and 92 no texts are required, but each student pays a class fee of $\$ 3.00$ per semester with which all books to be read are purchased and placed in the libraries. This fee is collected through the Trcasurcr's Office.

101-102. Early European Civilization.-A study of the development in Western Europe of the institutions and cultures of ancient times and the middle ages. 6 s.h. (E)

Assistant Professor Quynn
Sophomores who made an average grade of " $B$ " or more on course 1-2 may be admitted to this course.

105-105. English Constitutional History.-A history of England with emphasis on constitutional aspects. This course is required of students in the Pre-Legal Group in the Junior or Senior year. 6 s.h. (w)

Assistant Professor Hamilton
Students who have had course 123-124 may not reccive credit for this course.
107-108. Social and Cultural History of England.-A study of English history from the fourteenth century to the present time in an effort to arrive at a synthesis of social and political events and thus provide a background
for the study of English literature. Emphasis is placed on the age of Chaucer, Shakespeare, and Milton; the eighteenth and early nineteenth centuries; the reign of Victoria and the twentieth century. 6 s.h. (E)

Dr. Ferguson
Sophomores zwho made an average grade of " $B$ " or above on course 1-2 may be admitted to this course.
[Not offered in 1946-47]
114. History of the United States since Reconstruction.-Reconstruction and its aftermath; cultural, political, and economic development since 1876, agrarian and labor problems, the rise of large industry, the Spanish War and imperialism, the World War, and post-bellum problems. Prerequisites: courses 91 and 92. 3 s.h. (w)

Professor Lanning
[Not offered in 1946-47]
116-117. The Age of Absolute Monarchy and the French Revolution.-The study in the first semester deals primarily with the political and social institutions of Western Europe in the seventeenth and eighteenth centuries, including such topics as the absolute monarchy in theory and practice, the peasants, the nobles, commercial and industrial classes, the Church. The study in the second semester includes the old regime in France, the French Revolution, and Napoleonic institutions in Western Europe. 6 s.h. (e)

Assistant Professor Acomb
121-122. The Church in American History.-Among the subjects considared are the relation of theology and church government to political theory and practice, the social and political results of the Great Awakening and of ecclesiastical controversies, the part played by the Church in the American Revolution and in the making of state constitutions, in education, westward expansion, in the reform movements of the nineteenth century, labor controversies, the Civil and World Wars, and internationalism. 6 s.h. (E)
[Not offered in 1946-47]
Professor Baldwin
123-124. English History.-A study in the first semester of the development in England of the institutions and habits of life characteristic of the nation and in the second of the extension of English influence throughout the world in the eighteenth, nineteenth, and twentieth centuries. 6 s.h. (w)

Professor Laprade
Students who have had course 105-106 may not receive credit for this course.
125-26. Europe in the Nineteenth Century.-The work in the first semester deals with the emergence of the Napoleonic empire from the French Revolution and subsequent events to 1861 , including such topics as the organization of Europe against Napoleon, the attempts to settle Europe at Vienna and afterward, the revolutions of 1830 and 1848, and the creation of the kingdom of Italy. Readings are assigned from such contemporary writers as Burke, Adam Smith, Mill, Jefferson, and Lincoln. The work in the second semester begins with the growing importance of the sciences, with attention to Darwin and Faraday. It includes such topics as the application of thermodynamics and electrodynamics to industry, the spread of the industrial revolution from England to America and the Continent, the intensification of social conflict, the rise of Marxian and Fabian socialism, Prussia and the unification of Germany, the rivalry of the European nations in Asia and Africa. Readings are assigned from works of Darwin, Marx, DeTocqueville, Tolstoy, and Shaw. 6 s.h. (w)

Dr. Parker
127. History of Latin America Through the Formation of the National Governments.-3 s.h. (w)

Professor Lanning
128. Inter-American Affairs.-This course treats the relations of the Latin-American states with each other and with the United States with the design of explaining the current significance of Latin America. Chief emphasis is placed upon social problems and movements common to all the
republics and upon the role of the United States in Latin-American affairs, including such topics as American intervention; contributions of the United States to Latin-American life in such matters as public health; Pan-Americanism: Pan-Hispanism; foreign penetration and ideologies; the cultural and commercial aspects of the Good Neighbor Policy; Latin-American states in the World War and the present conflict. 3 s.h. (w) . Professor Lanning

129-130. European Expansion Overseas.-In the first semester attention is given to the age of discovery and exploration, the origin and development of the great European empires overseas, and the influence of this movement on the peoples of Western Europe. The work in the second semester deals with the decline of the mercantile empires of the eighteenth century, the rise of free-trade expansion, and the revival of mercantile imperialism in the late nineteenth and twentieth centuries. 6 s.h. (w) Associate Professor Manchester
[ Not offered in 1946-47]
Ancient History.-Greek 131-Latin 131-132.-See Departments of Greek, Latin and Roman Studies. These courses do not count toward a major in bistory. (w)

135-136. Europe in the Twentieth Century.-The work in the first semester deals with the period before 1920, including such topics as international relations at the beginning of the twentieth century, the rise of German naval power, the Triple Alliance and the Triple Entente, the economic interdependence of the world, the Turkish Revolution, the Turco-Italian War and the Balkan wars, the first World War, and its immediate aftermath. In the second semester such topics are treated as the rise of the totalitarian states, the disruption of world trade, and the second World War. 6 s.h. (w) Professor Carroll

141-142. The Far East from Commodore Perry to Chiang Kai-shek. Historical interpretations of the role of Eastern Asia in the recent World War with attention to such topics as Western imperialism in China and Japan in the nineteenth century; the rise of Japan as a military and industrial power; the emergence of militant Chinese nationalism; the fusion of the Far Eastern and the European wars into a world conflict. 6 s.h. (w) Professor Clyde

153-154. The History of the South.-A study, beginning in the Colonial period, of the development of the Southern part of the United States with particular attention to its distinctive characteristics and institutions and to their influence in shaping Southern attitudes toward major questions of national policy. 6 s.h. (w)

Professor Sydnor
161-162. Russia from Ivan the Terrible to Stalin.-Topics treated include the rise of the Russian state and its relations with Poland and Turkey; the agrarian problem and the rise of industry; the Russian Revolution; the political, agricultural, and industrial policies of the Soviet Union; the role of the U.S.S.R. in World War II and its postwar policies. 6 s.h. (w)

Associate Professor Curtiss

## FOR SENIORS AND GRADUATES

203-204. The United States, 1850-1900.-The rise of sectionalism, secession, war-time problems of the Union and Confederacy, political and economic adjustments of Reconstruction, the status of the Negro, the New South, problems of capital and labor, the agrarian revolt, political parties and reform, the Spanish-American War. 6 s.h. (w) Associate Professor Woody
[Not offered in 1946-47]
207-208. Social and Cultural History of the United States.-A study of American life and manners with emphasis on educational and reform movements, religion, and the social effects of a changing economy. 6 s.h. (w)

Associate Professor Robert

209-210. American Constitutional History.-A study of the Colonial foundations of American constitutional attitudes, the constitutional aspects of the American Revolution, the framing and ratification of the Constitution, the statehood process and the extension of democracy, the constitutional implications of sectional conflict, and the Supreme Court in its relation to the problems of an industrial America. Prerequisites: courses 91 and 92. 6 s.h. (w)
[Not offered in 1946-47!
Assistant Professor Still
211. The Teaching of History and the Social Studies (Education 225).3 s.h. (w)

Associate Professor Manchester
215-216. The Foreign Policy and Diplomacy of the United States.-The work in the first semester, covering the period 1775-1877, deals with such topics as the origin and development of basic foreign policies; isolation from Europe; paramount interests in Latin America, including the Monroe Doctrine; international co-operation in the Far East. The work in the second semester, covering the period since 1877, deals with topics such as the rise of the new "manifest destiny"; beginnings of American imperialism in Latin America and the Far East; the failure of traditional neutrality in the first World War; postwar conflicts between isolation and collective security; involvement in the second World War. 6 s.h. (w)

Professor Clyde
[Not offered in 1946-47]
217-218. Europe since 1870. -International relations since the FrancoGerman War is the chief subject of study in this course; special emphasis is placed upon the underlying economic and political influences. 6 s.h. (w)

Professor Carroll
219-220. The History of the European Proletariat.-This course is concerned chiefly with the origins, expansion, and organization of the industrial working classes of Europe. The following problems are emphasized: the decline of serfdom, the growth of an urban working class and social revolutions in England, France, and Germany prior to the eighteenth century, the results of the Industrial Revolution, and labor movements and theories during the nineteenth and twentieth centuries. 6 s.h. (w) Professor Carroll
[Not offered in 1946-47]
221-222. The Age of Renaissance.-A survey of social and cultural changes in Western Europe from Dante to Erasmus. 6 s.h. (w) Associate Professor Nelson
223-224. Medieval Institutions and Culture.-A consideration of the classical heritage, the Germanic infusion, development of ecclesiastical, feudal, monarchical, and communal institutions, relations of Church and State, the rise of universities, vernacular literatures, philosophy, and art in the period 300-1300 A.D. 6 s.h. (w) Assistant Professor Quynn
225-226. The Age of the Reformation.-A survey of European civilization from 1500 through the Peace of Westphalia. 6 s.h. (w)
[Not offered in 1946-47] Associate Professor Nelson
230. The Portuguese Empire and the Rise of Brazil.-The course deals with Portuguese explorations, the establishment of the Portuguese Empire in the East, the transplanting of Portuguese culture overseas, and the rise of a native Brazilian civilization. 3 s.h. (w) Associate Professor Manchester
231. The Hispanic Colonies of the New World.-The development of the Iberian states as colonizing powers, the work of the conquerors, the Spanish colonial policy and system, their influences and results, native races, the international contest for supremacy, and the decay of Spanish power in America and the Philippines. 3 s.h. (w)

Professor Lanning
232. Hispanic Republics of the New World.-3 s.h. (w)

Professor Lanning
233. The Cultural and Institutional History of Colonial Hispanic Amer-ica.-3 s.h. (w)

Professor Lanning
[Not offered in 1946-47]
234. Political and Social Problems in the Hispanic American Republics.3 s.h. (w)

Profes sor Lanning
[Not offered in 1946-47]
241-242. The Foreign Relations and Diplomacy of the United States in the Pacific Area and the Far East.-A study of the origins and growth of American relations with China, Japan, the Philippines, and other Pacific areas in their commercial, political, and cultural aspects. 6 s.h. (w)

Professor Clyde
261-262. Russia in the Twentieth Century.-A study of the background of the Revolution of 1917 followed by an analysis of the history and policies of the Soviet state. 6 s.h. (w) Associate Professor Curtiss

263-264. American Colonial History and the Revolution, 1606-1783.The growth of institutions and economic life in the English colonies and the American Revolution. 6 s.h. (w)

Associate Professor Woody
[Not offered in 1946-47]
265-266. The Westward Movement in the United States.-A study of the progress of settlement from the Atlantic to the Pacific Coast with especial attention to the transmission of culture, developments in transportation, the transition from agrarian to urban communities, the process of state-making, and the social, economic, and political effects of the westward march upon the United States as a whole. 6 s.h. (w)

Assistant Proffessor Still

## NAVY V-12 COURSES

H1-2. Historical Background of Present World War.-May be counted as an introductory course in History. 4 s.h.

N3. Naval History and Elementary Strategy.-3 s.h.
H3. The Ecclesiastical Age.-3 s.h.
H4. A Course Covering the 14th, 15 th, 16 th, and 17 th Centuries to the Close of the Religious Wars in 1648.-3 s.h.

H5. Origins of Modern Europe. 1648-1815.—3 s.h.
H6. Europe in Modern Times from the French Revolution to the Munich Pact.-3 s.h.

H7. American History.-3 s.h.

## DEPARTMENTAL MAJOR

Prerequisites: The Introductory Course in History (1-2 or 51-52).
Major Requirements: Students in the General Group desiring to take a major in history are required to elect twenty-four semester hours in the Department, including six semester hours in the Senior year from courses in the 200 group. Students desiring to take the more advanced courses in American history should elect courses 91 and 92 in the Sophomore or Junior year.

## DEPARTMENTAL HONORS PROGRAM

Students may become candidates for Honors in history who have passed with a grade of "B" or better in their Freshman and Sophomore years courses 91 and 92 in addition to the introductory course in European history.

Candidates for Honors in history are required to take in the Junior year two courses in history offered in the 100 group and to make an average grade of " B " or better on this work. The remaining work in the Junior year will be chosen from related work and other electives with the consent of the

Departmental Committee on Honors. In the Senior year, in addition to the equivalent of fifteen semester hours of supervised reading in history, the candidate must elect with the approval of the Departmental Committee on Honors six semester hours of work from the courses in history offered in the 200 group, on which he is required to make a grade of " B " or better, and nine semester hours of related or other elective work.

Of the supervised reading, which shall be done under the immediate supervision of members of the Departmental Committee on Honors, the equivalent of six semester hours shall be devoted to the classical historians such as Herodotus, Thucydides, Tacitus, Livy, Bede, the better-known chronicles, Machiavelli, Gibbon, Hume, Voltaire, Ranke, and others; the equivalent of rine semester hours shall be devoted to selected fields in either American or European history as the student may elect and the Departmental Committee advise.

At the conclusion of the work the student shall be given an oral examination by a committee of three, consisting of the two members of the Departmental Committee on Honors in charge of his supervised reading and another member of the Department selected by the Departmental Committee.

## LATIN AND ROMAN STUDIES

PROFESSOR ROGERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; DR. ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION
Students who wish by study in English to make acquaintance with Roman antiquity from either a literary or an historical approach are afforded that opportunity through the courses in translated Latin Literature (111-112) and Roman History (131-132).

Work is offered in several branches of Roman Studies: Latin Language and Literature, Roman Art and Archaeology, Roman History, Roman Law. Students who present two entrance units in Latin should take course 3-4; those who present three entrance units should take courses 57 and 65 and follow up with courses 4 and 58 , or 66 , or both, the second semester; those who enter with four units of Latin should pursue course $51-52$. A course for beginners, Latin 1-2, is open to all college students.

1-2. Course for Beginners.-Forms, vocabulary, pronunciation, and syntax are emphasized the first semester and will be followed by the reading and translating of Caesar's Gallic War the second semester. An effort is made to promote rapid development of ability to read easy Latin with satisfaction. 6 s.h. (w or E)

Dr. Rose
3. Cicero's Orations.-Four orations including the Manilian Law and Archias are read, and attention is paid to prose style. Prerequisite: two entrance units of Latin. 3 s.h. (w)

Dr. Rose
4. Vergil's Aeneid.-Selections from Books I-VI, to the amount of four books or more, will be read and translated, due attention being paid to prosody. Prerequisite: three entrance units and Latin 57 taken in the semester preceding admission to the course, unless Latin 3 was taken. 3 s.h. (w) Dr. Rose
51. Latin Prose.-Selections from prose authors, or Cicero's De Senectute and De Amicitia, or selected books of Livy's history, with special emphasis on developing competence in reading Latin. 3 s.h. (w or e) Professor Rogers
52. Latin Poetry.-Selections from the greatest Latin poets, especially Horace's Odes. 3 s.h. (w or E)

Professor Rogers
53. Sallust and Tacitus.-The Jugurtha of Sallust, the Agricola of Tacitus. Prerequisite: Latin 51-52 or an equivalent. 3 s.h. (w or E)

Dr. Rose
54. Catullus.-Most of the poems will be read, and Catullus' influence on -ertain ancient and modern poets, will be discussed.

Dr. Rose
57. Sight Reading in Classical Latin.-One period of an hour per week devoted to practice in the reading of Latin of the classical period; designed to train students to read with facility. (See course 4.) No outside preparation is required. 1 s.h. (w or E )

Dr. Rose
58. Sight Reading in Medieval Latin.-One period an hour per week devoted to reading interesting medieval prose and poetry. Prerequisite: at least one of the following courses: Latin 3, 4, 51, 52, and 57, or an equivalent. No outside preparation is required. 1 s.h. (w or E )

Dr. Rose
65-66. Latin Prose Composition.-Recommended to students who are pursuing courses 3-4, 57, and 51-52, and may at the discretion of the instructor be required of such students. 2 s.h. (E)

Dr. Rose
101. Tacitus and Suetonius.-Interesting and historically important selections from the Annals or the Histories of Tacitus, with some parallel sections of Suetonius' Lives of the Treelve Caesars, are read, with attention to the literary style and the value of the historical narrative. 3 s.h.

Professor Rogers
102. Juvenal and Persius.-Juvenal's literary satire forms the basis of the course, and some selections from Persius are read for comparison. 3 s.h.

Professor Rogers
103. The Roman Elegiac Poets.
104. Horace: Satires and Epistles.
105. Martial's Epigrams.
106. Letters of Pliny the Younger.
107. Livy: Ab Urbe Condita.

## 108. Cicero's Letters.

109. Materials and Methods.-A study of Latin in the secondary school curriculum for prospective teachers of Latin in high schools. Prerequisite: eighteen approved semester hours of college Latin, including courses 51-52, 5354 , or equivalent courses. Required of students who plan to teach Latin in state high schools. 3 s.h.

Dr. Rose
111-112. Roman Literature in English Translation.-Selective readings in Latin literature in English translation with emphasis on the drama, lyric poetry, and the varied contributions of Cicero to literature in the first term, and upon the epic, the satire and the novel in the second semester. (No language credit.) 3 s.h. (E or w)

Dr. Rose

## 113-114. Roman Civilization.

## 115-116. Art and Architecture of Ancient Rome.

131-132. History of Rome.-A survey of the history of Rome from its beginnings through the Monarchy, Republic and Principate to the death of Justinian; Rome's expansion; development of the Roman constitution and public administration ; a study of important features of social, legal, political, and economic problems of perennial life and interest. (This course carries no language credit. No knowledge of Latin is required for admission.) 6 s.h. (w)

Professor Rogers
203-204. Roman Epic: Ennius, Vergil, Manilius, Lucan, Flaccus, Statius, Silius.-A study of this literary genre, and its development by Roman writers; extensive reading of the Roman epics. Not offered if 205-206 is given. 6 s.h. (E)

205-206. Roman Drama.-Select comedies of Plautus and Terence; select tragedies of Seneca. Rapid reading course. 6 s.h. (E)

207-208. Roman Philosophy.
209-210. Vulgar Latin: Introduction to Romance Philology.
211-212. Roman Oratory.-A reading course in the history and development of Roman Oratory, based for the most part on Cicero's Brutus and the Dialogus of Tacitus. 6 s.h. ( E , or w)

Professor Rogers

## 215. Roman Art and Archaeology.

216. Topography and Monuments of Ancient Rome.

For other courses numbered in the 200 group, see the Bulletin of the Graduate School.

## NAVY V-12 COURSES

Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language 3-4 may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses.
DEPARTMENTAL MAJOR
Prerequisites: Latin 1-2, 3-4, or acceptable equivalents.
Major Requirements: Latin 51-52, 53-54, 65-66, six semester hours in courses numbered 101-108, and in the senior year six semester hours in courses of the 200 -group.

Majors are recommended to elect course 131-32, History of Rome.
Majors who contemplate graduate work are reminded of the necessity of Greek, German, and French for such study.

## LAW COURSES FOR ACADEMIC STUDENTS

The first-year program of the Law School will include the following courses:

Sumaler Semester, 1946 Fall Spring
Subject s.h. Semester, Semester,
Chattel Transactions ........ 4 1946 1947
Criminal Law .............. 3 Subject s.н. s.и.

Introduction to Procedure .. 3 Chattel Transactions ...... 4


- Criminal Law ............... 3

15 Introduction to
Procedure ................ 3
Legal Research and
Writing ................... 2
Possessory Estates ......... 3
Torts. ....................... 3 2
$15 \quad 15$
For further information, inquiry should be made of the Dean of the School of Law.

## MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN; PROFESSOR ELLIOTT, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR DRESSEL, SUPERVISOR OF FRESHMAN゙ IN゙STRUCTION; PROFESSORS CARLITZ, RANKIN, AND THOMAS; ASSOCIATE PROFESSOR ROBERTS ; ASSISTANT PROFESSORS HICKSON AND PATTERSON ; DR. WADE; AND ASSISTANTS
A student who has had adequate high school training may with the approval of the Department elect Mathematics 15, 16, or 50 without first com-
pleting the courses listed as prerequisite for these courses. A student wishing to major in Mathematics should if possible arrange his program so as to complete Mathematics 51-52 or 59-60 before his Junior year. Students working toward the Bachelor of Science degree in Trinity College and the Woman's College, and those in the Pre-Medical and Business Administration Groups must complete six semester hours of approved work in Mathematics. A student working toward the Bachelor of Science degree or a student in the PreMedical Group may meet his requirement in Mathematics by completion of Mathematics 2 and 5. A student in the Business Administration Group may meet his requirement by completion of Mathematics 1 and 2 , or Mathematics 2 and 5 , or Mathematics 5 and 16.

The Department will offer in 1946-47 those of the following courses for which there is sufficient demand. The program of undergraduate courses planned is as follows:

Fall term: Mathematics 1, 2, 5, 15, 50, 51, 59, 60, 125, 131.
Spring term: Mathematics $1,2,5,16,50,52,59,60,112,124,160$.
Credit is allowed for half of a hyphenated course.

1. Intermediate Algebra.-Elementary topics, factoring, fractions, linear equations in one, two, and three unknowns, functions and graphs, exponents and radicals, elements of quadratic equations. Prerequisite : one unit in algebra and one unit in geometry. 3 s.h. (w \& E) Staff
2. Plane Trigonometry.-Logarithms, right and oblique triangles, radian measure, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities and equations, complex numbers. This course and Mathematics 5 may be taken concurrently. Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h. (w \& E) Staff
3. College Algebra.-Advanced topics in quadratic equations, systems involving quadratics, variation, binomial theorem, progressions, inequalities, theory of equations, permutations and combinations, probability, determinants, curve fitting. This course and Mathematics 2 may be taken concurrently. Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h. ( $\mathrm{w} \& \mathrm{E}$ )

Staff
15. Spherical Geometry and Trigonometry.-Geometric properties of the sphere, theory and computation for spherical triangles, applications to navigation and astronomy. Prerequisite: Mathematics 2 and 5. 3 s.h. (w) Staff
16. Mathematics of Investment.-Simple and compound interest, annuities certain, amortization. sinking funds, depreciation, evaluation of bonds, lifeinsurance. Prerequisite: Mathematics 5. 3 s.h. (w \& E)

Staff
50. Analytic Geometry.-Rectangular and polar coördinates, loci, straight lines, conic sections, introduction to solid analytic geometry. Prerequisite: Mathematics 2 and 5. 3 or 4 s.h. (w \& E)

Staff
51-52. Calculus.--First semester: differentiation of elementary functions, curve tracing, maxima and minima, differentials, curvature, motion, infinite series. Second semester: indefinite integrals, definite integrals, partial differentiation, multiple integrals, applications. Prerequisite: Mathematics 50. 6 s.h. ( $\mathrm{w} \& \mathrm{E}$ )

59-60. Calculus.-First semester: polynomial curves, differentiation of elementary functions, maxima and minima, related rates, differentials, integration of elementary functions, applications to plane areas, solids of revolution, miscellaneous solids, arc length, surfaces of revolution. Second semester: curvature, indeterminate forms, algebraic curves, approximate solution of equations, improper integrals, centroids, moments of inertia, fluid pressure, approximate integration, series, partial differentiation, multiple integration and applications. Prerequisite: Mathematics 50. 8 s.h. (w)

Staff
63. Nomography.-Theory and actual construction of charts for approximate numerical calculations, theory of the slide rule, design of special purpose slide rules. Prerequisite: Mathematics 50. 3 s.h. (w)

Professor Thomas
112. Mathematical Method.-A historical and critical appraisal of mathematical thought in its cultural relations to other fields. This course presupposes no previous college training in mathematics, but maturity of outlook is desirable. 3 s.h. (E)

Professor Thomas
124. Statistics.-Averages, moments, dispersion, skewness, kurtosis, correlation, types of distributions, curve fitting, graduation of data to type curves, sampling theory. Prerequisite: Mathematics $51-52$ or $59-60$. 3 s.h. (w)

Assistant Professor Hickson
125. Elementary Theory of Equations.-Permutations, determinants, matrices, linear systems, polynomials and their roots, constructibility, resultants, discriminants, simultaneous equations. Prerequisite: Mathematics 51-52 or 5960. 3 s.h. (w)

Professor Thomas
131. Elementary Differential Equations.-Solution of elementary types; formation and integration of equations arising in applications. Prerequisite: Mathematics 51-52 or 59-60. 3 s.h. (w)

Staff
139-140. Second Course in Calculus.-Multiple integrals, series, Taylor's theorem, partial differentiation and applications to geometry, improper integrals, line integrals, Green's theorem and applications to physics, complex numbers. Prerequisite: Mathematics $51-52$ or $59-60$. 6 s.h. (w) Professor Elliott
158. Finite Differences.-Interpolation formulas, symbolic methods, polynomials of Bernoulli and Euler, numerical differentiation and integration, difference equations. Prerequisite: Mathematics $51-52$ or $59-60$. 3 s.h. (w)

Professor Carlitz
160. Elementary Solid Analytic Geometry.-Planes, straight lines, quadric surfaces. Prerequisite: Mathematics $51-52$ or $59-60$. 3 s.h. (w)

Professor Carlitz

## FOR SENIIORS AND GRADUATES

201. History of Mathematics.-Evolution of the number system, arithmetic, geometry, algebra, trigonometry, analytic geometry, calculus, and modern geometry: Brief sketches of mathematicians. Prerequisite: Mathematics 51 or $59 . \quad 3$ s.h. (E)

Professor Rankin
204. Teaching of Mathematics.-Fundamental processes, methods of study, mathematical literature, content of courses, applications, use of instruments. correlation of different branches, historical development of secondary school mathematics. Must be preceded or accompanied by Nathematics 52 or 60 . 3 s.h. (E)

Professor Rankin
227-228. Theory of Numbers.-Congruences, arithmetic functions, compound moduli, quadratic reciprocity, Gauss sums, quadratic forms, sums of squares. Prerequisite: Mathematics $51-52$ or $59-60$. 6 s.h. (w)

Professor Carlit\%
229-230. Algebraic Numbers.-Ideals, unique factorization, divisors of the discriminant, determination of the class number. Prerequisite: Mathematics 125. 6 s.h. (w)

Professor Carlitz
235-236. Modern Algebra.-Groups, fields, rings, matrices, quadratic and bilinear forms. general Galois theory, hypercomplex systems. Prerequisite: Mathematics 51-52 or 59-60. 6 s.h. (w)

Professor Carlitz
250. Modern Geometry.- Properties of the triangle, transversals, harmonic properties of figures, poles, polars, inversion. 3 s.h. (w) Professor Thomas

255-256. Projective Geometry.-Postulational, synthetic treatment centering around Desargues' theorem and the principal of projectivity. Conics, coordinates, order, continuity, metric properties. Prerequisite: Mathematics 5152 or 59-60. 6 s.h. (w)

Professor Thomas
271-272. Introductory Topology.-Topological properties of Euclidean spaces, set-theoretic and combinatorial methods. Prerequisite: Mathematics 51-52 or 59-60. 6 s.h. (w) Associate Professor Roberts
275. Probability.-Combinatory analysis, mean values, Bernoulli's theorem, probability integral, applications to statistics. Prerequisite: Mathematics 51-52 or 59-60. 3 s.h. (w)

Associate Professor Dressel
285-286. Mathematical Analysis for Physicists.-Potentials, Fourier series, Legendre polynomials, Bessel functions, heat equation, wave equation, telegraphic equation, Schrödinger's equation. Prerequisite: Mathematics 51-52 or 59-60. 6 s.h. (w)

Associate Professor Dressel
287. Mathematical Logic.-Boole-Schroeder algebra of logic, system of Principia Mathematica, strict and material implication. 3 s.h. (w)

Professor Carlitz
288. Foundations of Mathematics.-Postulates for groups, fields, rings, Boolean algebras. 3 s.h. (w)

Professor Carlitz
291-292. Theory of Functions.-Limits, implicit functions, power series, double series, Cauchy's theorem and its applications, Riemann surfaces, conformal mapping. Prerequisite: Mathematics $51-52$ or $59-60.6$ s.h. (w)

Professor Gergen

## DEPARTMENTAL MAJOR

A. For the A.B. degree:

Prerequisite: Mathematics 2 and 5.
Major Requirement: Mathematics 50, 51-52 or 59-60, and twelve semester hours in courses numbered above 100, exclusive of Mathematics 112, 201, 204. B. For the B.S. degree:

Prerequisite: Mathematics 2 and 5.
Major Requirement: Mathematics $50,51-52$ or $59-60$, and fifteen semester hours in courses numbered above 60, exclusive of Mathematics 112, 201, 204.

## NAVAL SCIENCE AND TACTICS

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PROFESSOR KOWALZYK, CAPTAIN, U. S. NAVY; ASSOCIATE PROFESSOR CONE, COM-
    MANDER, U. S. NAVY; ASSISTANT PROFESSORS SMITH, LIEUTENANT COM-
        MANDER, U.S.N.R.; PENCE, LIEUTENANT COMMANDER, U.S.N.R.; MUFFLEY,
            LIEUTENANT, U.S.N.R.; WEISFLOCK, LIEUTENANT, U.S.N.R.; SEARS,
                LIEUTENANT, U.S.N.R. ; BERTHOLF, LIEUTENANT, U.S.N.R. ; JENK-
                    INS, LIEUTENANT, U.S.N.R.; SLOATE, LIEUTENANT (J.G.),
                        U.S.N.R.; WESCHE, LIEUTENANT (J.G.), U.S.N.R.; LUGN,
                        ENSIGN, U.S.N.R.; GREENE, ENSIGN, U.S.N.R.
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Under wartime regulations for the administration of the Naval Reserve Officers' Training Corps, members will be limited to Apprentice Seamen, Class V-12 USNR or USN, who are ordered to this training by the Bureau of Naval Personnel.

Civilian students may enroll in Naval Science courses for college credits with the approval of the University. These students are not actually enrolled in the NROTC, but may participate in local drills with the approval of the Professor of Naval Science and Tactics.

It is anticipated NROTC will revert to a peacetime basis July 1, 1946. If this change occurs, it will modify the paragraphs above.

NS 1-2. Seamanship. -6 s.h. (w)
Staff
NS 3. Damage Control and Engineering.-3 s.h. (w) Staff
NS 4-5. Navigation and Nautical Astronomy.-6 s.h. (w) Sraff
NS 6. Naval Administration and Law.-3 s.h. (w) Staff
NS 7. Tactics, Aviation and Recognition.-3 s.h. (w) Staff
NS 8. Ordnance.-3 s.h. (w) Staff
NS 9. Gunnery.-3 s.h. (w) Staff
NS 10. Communications.-3 s.h. (w) StafF
NS 11. Refresher Course.-3 s.h. (w) Staff

## PHILOSOPHY

PROFESSOR WIDGERY, CHAIRMAN; ASSOCIATE PROFESSOR LEONARD, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR MCLARTY, SUPERVISOR OF FRESHMAN INSRUCTION; PROFESSORS GILBERT, PATTERSON AND SMITH
For courses marked with an asterisk there is a prerequisite of three hours of philosophy; admission otherwise by permission of the instructor. Sophomores may in general take courses prescribed for Juniors by permission of the instructor.
48. Introduction to Logic and Scientific Method.-The general principles of logical thinking: the nature of the logical processes involved in the attainment of knowledge in mathematics, the sciences, history, and philosophy. The character of systematic exposition. 3 s.h. Associate Professor Leonard
95. Introduction to Ethics.-An elementary consideration of some of the important moral problems in the light of philosophical tradition and the science of values. Sophomores and approved Freshmen. 3 s.h.

First semester: (w) Assistant Professor McLarty Second semester: (e) Professor Gilbert
96. The Development of American Philosophy.-3 s.h.
101. Introduction to Philosophy.-This course is intended to acquaint the student with the nature of philosophical problems. 3 s.h.

First semester: (e) Professor Gilbert
(w) Professor Widgery
Second semester: (w) Professor Patterson
Second semester: (w) Professor Patterson
103. Logic.-Fundamental principles of valid reasoning. 3 s.h.

Associate Professor Leonard
104. Scientific Methodology.-A survey of the methods used in various natural and social sciences. 3 s.h. Associate Professor Leonard
105. Introduction to the History of Philosophy: Ancient and Medieval.A study of the great philosophic thinkers with special reference to the problems of a philosophy of human life. 3 s.h.

Professor Patterson
106. Introduction to the History of Philosophy: Modern.-A study of the great philosophical thinkers with special reference to the problems of a philosophy of human life. 3 s.h.

Professor Widgery
108. Philosophical Idẹas in Ancient Greek and Roman Culture.- 3 s.h. Assistant Professor McLarty
114. Seventeenth-Centurj ªiiusopiy, witi Special Kererence to Spinoza. -3 s.h. (E)

Professor Gilibert
119. Fundamentals of Christian Morality: An Introduction to Christian Ethics.-3 s.h.

Assistant Professor McLarty
121. The Philosophy of Plato.-Lectures, readings, and reports. Reference will be made to some influences of Platonic modes of thought in English literature. 3 s.h.

Assistant Professor McLarty

## FOR SENIORS AND GRADUATES

201-202. The Philosophy of Art.-Study of the various phases of the aesthetic experience and forms of beauty with analysis of examples. Particular attention will be given to recent writers on aesthetics. 6 s.h. (E)
[In alternate years-offered in 1946-47] Professor Gilbert
203. The Philosophy of Conduct.*-A critical study of the fundamental problems of ethics. 3 s.h.

Professor Patterson
205. The Philosophy of History.-An inquiry into the logic and methodology of the knowledge of history, and into the metaphysical implications of history. 3 s.h. (w)

Professor Widgery
[In alternate years-not offered in 1946-47]
208. Political Philosophy.-A critical investigation of the bases of political authority and of the ideals of political organization, with reference to prevalent political system. 3 s.h. (w) Professor Patterson

209-210. The Philosophy of Religion.-A critical consideration of the data of empirical religion and the constructive development of a modern philosophy of religion. 6 s.h. (w)

Professor Widgery
[In alternate years-not offered in 1946-47]
211. Philosophy of Civilization.-The meaning and standards of civilization; its growth, decay, and survival. 3 s.h. (w)
[Not offered in 1946-47]
213-214. History of Aesthetics.-The tracing of the historical solutions of traditional problems, such as the nature of imitation, symbolism, the ugly, the sublime, and the comic; the relation of art to nature, to morals, and to economics; the relation of the particular arts to each other, the standard of taste. 6 s.h. (E)

Professor Gilbert
[In alternate years-not offered in 1946-47]
215. Christian Ethics I.-A historical and systematic study of Christian conceptions of the moral life and its problems. First semester. (w) 3 s.h. Religion 291.
216. Christian Ethics II.-A critical consideration of selected modern social problems from the viewpoint of Christian ethics. 3 s.h. (w)
217. The Philosophy of Aristotle.*-Prerequisite: course 105.

## Assistant Professor McLarty

224. Contemporary Philosophy.-A study of the leading philosophical movements in Europe and America in the last fifty years. 3 s.h.
[Not offered in 1946-47]
Professor Widgery
225. The History of Ethics.-Theories of morality from Socrates to the present time. 3 s.h.
[In alternate years-offered in 1946-47]
231-232. Philosophy of Science.-A historical and critical survey of the relations of natural science to general philosophy. 6 s.h.

Associate Professor Leonard
236. Oriental Philosophy I.-Chinese Philosophy. Main features of Chinese philosophy with a study of texts in English. 3 s.h.

Professor Widgery
238. Oriental Philosophy II.-Indian Philosophy. A concise survey of the chief indigenous philosophical systems of India with a study of texts in English. 3 s.h.

Professor Widgery
[Not offered in 1946-47]
241. Logic.-The characteristic structure of a logical system. Forms of propositions and of arguments. Logical relations of propositions. Levels of analysis. 3 s.h.

Associate Professor Leonard
242. Scientific Methodology.-A survey of the methods used in the different branches of the natural and social sciences in seeking and testing knowledge. 3 s.h.

Associate Professor Leonard

## related courses in other departments

Education 200. Introduction to the Philosophy of Education.
Greek 107-108. Plato.-Euripides.
Greek 209-210. Plato.
History 221-222. The Age of the Renaissance.
Mathematics 287. Mathematical Logic.
Mathematics 288. Foundations of Mathematics.
Physics 213-214. Contemporary Physics.
Political Science 223. Political Thought to the Seventeenth Century.
Political Science 224. Modern Political Theory.
Psychology 228. Psychology of Belief.

## DEPARTMENTAL MAJOR

The student is required to take courses amounting to at least eighteen credit hours in the Department. Of these, six must be Philosophy 105-106, Introduction to the History of Philosophy; and six must be from courses in the 200 series. The student is advised to consult with an instructor in the Department as to the courses most suitable to fit in his general plan of study.

DEPARTMENTAL HONORS PROGRAM
For details the student should consult the Chairman of the Department.

## PHYSICS

PROFESSOR NIELSEN, CHAIRMAN; PROFESSOR HATLEY, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR CARPENTER, SUPERVISOR OF FRESHMAN INSTRUCTION ; PROFESSORS NORDHEIM AND SPONER; ASSOCIATE PROFESSORS CONSTANT AND GORDY; MR. SMITH
1-2. Introductory Physics.-This course traces historically and experimentally the development of the important principles of physics. This course is open to Freshmen, Sophomores and Juniors and meets the general science requirement. Three hours of recitation and one two-hour laboratory each week. 8 s.h. (w \& e) Associate Professor Carpenter; Professor Hatley, and Assistants
51-52. General Physics.-This course treats the basic principles of general physics in a more quantitative manner than Physics 1-2. It is designed for Sophomores and Juniors and meets in a thorough way the requirements for entrance into the study of medicine and is well suited for the general science student. A limited number of Freshmen who present physics for entrance and who are taking the required mathematics concurrently may be admitted by permission of the instructor. Four lecture-recitations and one three-hour laboratory period each week.

Prerequisite: Mathematics 2-5 or equivalent (Mathematics 5 may be taken concurrently). 10 s.h. (w) Professor Hatley; Associate Professor Carpenter; and Assistants
101-102. Intermediate Physics.-A course in which attention is focussed on a selected group of experiments which form the basis of the fundamental principles of classical physics. Two recitations and two three-hour laboratory periods per week.

Prerequisites: Physics 1-2 or 51-52 or equivalent, and a course in differential and integral calculus which may be taken concurrently. 8 s.h. (w)

Professor Nielsen
A course in general college physics, Physics 101-102 or equivalent validated by examination, and a course in differential and integral calculus are prerequisites to all courses numbered 200 and above.
201. Mechanics.-The fundamental principles of statics and the dynamics of particles and rigid bodies. Three recitations each week. 3 s.h. (w)

203-204. Electricity and Magnetism.-Fundamentals of electricity and magnetism. Electrostatics and magnetostatics. Direct current circuits and net-works-bridges, potentiometers, galvanometers, alternating current circuits and networks-generators, motors, transformers. Transient phenomena-ballistic galvanometes and fluxmeters. Two recitations and one three-hour laboratory each week. 6 s.h. (w)

Associate Professor Constant and
Professor Nielsen
205. Spectroscopy.-The theory of optical instruments and a discussion of spectroscopic laws and of information obtained by spectroscopic methods. Three lectures and one three-hour laboratory each week. 4 s.h. (w)

Associate Professor Gordy and Professor Sponer
207. Sound and Acoustics.-Theory of vibrating systems. Mechanical-electrical-acoustical analogies. Emission and reception of sound, speakers and niicrophones. Transmission, reflection, refraction, diffraction and absorption of sound. Acoustical applications. Two lectures and one three-hour laboratory each week. 3 s.h. (w)

Associate Professor Constant and
Professor Nielsen
213-214. Contemporary Physics.-A course which covers the fundamental concepts and the experimental basis of modern physics. Three lectures and one three-hour laboratory each week. 8 s.h. (w)

Associate Professor Constant and Professor Nielsen
217-218. Advanced Physics Laboratory.-Measurements involving the fields of mechanics, electricity, magnetism, heat, sound, optics and modern physics. 2-6 s.h. (w)

The Staff
219. Electron Tubes and Their Application.-Theory and application of electron tube circuits with special emphasis on their use in scientific research. Three hours of lecture and one three-hour laboratory per week. Prerequisite: Ihysics 203-204 or equivalent. 4 s.h. (w)

Professor Nielsen
221-222. Introduction to Theoretical Physics.-Lectures and problems on the fundamental principles and mathematical theory of physics, constituting a thorough foundation for subsequent specialization and more intensive study. 8 s.h. (w)

Associate Professor Constant
225-226. Elementary Investigations.-The aim of this course is to provide training in the laboratory and library methods of physical research. Properly qualified students may conduct elementary investigations under the supervision of a member of the Staff. 3-6 s.h. (w)

The Staff

## NAVI V-12 COURSES

PH1 and PH2. General Physics.-May be substituted for Physics 1-2.
PH3-4. Mechanics and Heat.-7 s.h.
PH5-6. Theory of Electrical Measurements.-5 s.h.
PH7. Electricity and Magnetism I.-3 s.h.
PH10. Wave Motion and Sound.-5 s.h. May be substituted for Physics 207.

PH11. Analytical Mechanics and Thermodynamics.-4 s.h.
PH12. Electron Physics.-May be substituted for Physics 213. 3 s.h.
PH13. Optics.-5 s.h.
PH14-15. Electronics.-May be substituted for Physics 219. 7 s.h.
DEPARTMENTAL MAJOR
A. For the A.B. degree:

Prerequisites: Physics 1-2 or 51-52 or equivalent, and Mathematics 2-5.
Major Requirements: Eighteen to twenty-four hours in courses approved by the Department, $10-16$ hours of which must be in the 200 group.
B. For the B.S. degree:

Prerequisites: Physics 1-2, or 51-52 or equivalent, Chemistry 1-2 and Mathematics 2-5 or equivalent.

Major Requirements: Not less than twenty-four hours in courses approved by the Department, not less than 16 hours of which must be in the 200 group.

DEPARTMENTAL HONORS PROGRAM
Prerequisites: Physics 1-2 or 51-52, or equivalent and 101-102 or equivalent. Mathematics six semester hours and Chemistry 1-2.

Honors Program: 18 semester hours of Physics in the 200 group; Mathematics 131 ; electives: twenty-five semester hours or enough to satisfy the requirements for graduation, subject to the approval of the Departmental Honors Committee. Of these, at least six semester hours must be either a course in Geology, Botany or Zoology, or an advanced course in Chemistry or Mathematics.

In addition, the student will arrange with his adviser for the performance of a limited number of elementary physical investigations. This will consist of both readings and experimental work and in general will constitute a survey of the classical and modern aspects of physics for which ten semester hours credit will be allowed.

At the end of both Junior and Senior years, the student will be given both an oral and a written examination in the field of physics.

## POLITICAL SCIENCE

PROFESSOR IVILSON, CHAIRMAN; PROFESSOR RANKIN, ACTING CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES ; PROFESSORS COLE AND VON BECKERATH; ASSOCIATE PROFESSORS GIBSON, LINEEBARGER AND SHIPMAN; ASSISTANT

PROFESSORS SIMPSON, HALLOWELL, AND VISITIN゙G ASSISTANTT
PROFESSOR STURM ; AND MESSRS. STALVEY
AND STEWART
21. Principles of Government.-An introductory study of the principles and problems of government. Open to Freshmen as an elective. 3 s.h. (w \& E)

Professor von Beckerath
22. Governmental Problems in International Relations.-A study of international politics as seen in current problems of international relations. Open to Freshmen as an elective. 3 s.h. (w \& E) Professor von Beckerath

61-62. American Government and Politics.-A study of the American political system, including the organization and functioning of national, state, and local government in the United States. 6 s.h. (w \& E)

Professors Rankin, Wilson and Cole; Associate Professors Gibson, Linebarger and Shipman; Assistant Professors

Hallowell, Simipson and Visiting Assistant Professor Sturm; and Messrs. Stalyey and Stelvart

Course $61-62$ is ordinarily taken before any advanced course in political science. A student who has not had course 61-62 or equivalent work may take an advanced course in the Department with the approval of the instructor giving the advanced course.
111. Contemporary Problems in Far Eastern Politics.-An introductory survey of international politics in Eastern Asia and the Western Pacific. 3 s.h. Associate Professor Linebarger
123. American Political Theory.-A survey of the development of political ideas in America from Puritanism to the present day, with emphasis upon the growth of American democratic thought. 3 s.h.

Assistant Professor Hallowell
125. American Political Parties and Practical Politics.-A study of the historical development, organization, and methods of political parties in the United States. 3 s.h.

Assistant Professor Simpson
135. The British Dominions.-A survey of the governments of the British dominions with particular attention to Canada. 3 s.h. Professor Cole
136. Major European Governments.-A survey of the governments of the major European powers of today. 3 s.h.

Professor Cole and Assistant Professor Hallowell
141. Public Regulation.-An introduction to the administrative process, emphasizing the nature, types, and techniques, of public activity; and the methods and problems of protecting the public interest. 3 s.h.

Assistant Professor Simpson
151-152. Spanish-American Political Institutions.-A study of SpanishAmerican governments as illustrated in Argentina, Chile, Colombia, and Uruguay. The first semester is devoted to the colonial and independence periods, the second to the national. 6 s.h.

Associate Professor Gibson
172. Government and Agriculture.-A comparative study of national agricultural policies in Great Britain, Germany, Italy, France, and the United States in the nineteenth and twentieth centuries. 3 s.h.

Professor von Beckerath
174. Politics and Economics.-An analysis of the influence of politically dominant forces and ideologies upon economic policies in societies of principal Western countries since the seventeenth century. 3 s.h.

Professor von Beckerath
207. American Constitutional Law and Theory.-A study of leading principles of American government, as developed through judicial interpretation of the Constitution. 3 s.h.

Professors Wilson and Rankin
209. State and Local Government in the United States.-A study of the historical development of state and local governments, their present organization, their relation to each other and to the federal government. 3 s.h.

Professor Rankin
211. Political Institutions of the Far East.-A study of the governmental systems of Japan, Korea, and China from the Chou Dynasty to the present. 3 s.h. Associate Professor Linebarger
212. International Politics of the Far East.-A study of changing power relationships in the Orient since the arrival of the Europeans. 3 s.h.

Associate Professor Linebarger
223. Political Thought to the Seventeenth Century.-A survey of political thought from the time of Plato to the close of the sixteenth century. 3 s.h.

Professor Wilson and Assistant Professor Hallowell
224. Modern Political Theory.-Political theories of the seventeenth and eighteenth centuries, and of the first half of the nineteenth, with a study of their influence upon modern political institutions. 3 s.h.

Professor Wilson and Assistant Professor Hallowell
225. Comparative Government.-A comparative study of modern political institutions with particular attention to European constitutional government and politics. 3 s.h.

Professor Cole
226. Comparative Government.-A comparative study of modern political institutions with particular attention to European authoritarian and dictatorial government and politics. 3 s.h.

Professor Cole
227-228. International Law.-Elements of international law, particularly as interpreted and applied by the United States. 6 s.h. Professor Wilson
229. Recent and Contemporary Political Theory.-A study of the more significant contributions to political theory from 1850 to the present. 3 s.h. Professor Cole and Assistant Professor Hallowell
230. American Political Institutions.-A study of the formation and development of institutions of the national government in the United States, with historical and analytical treatment. 3 s.h.

Professor Rankin
241-242. The Administrative Process.-The function and theory of organization, delegated legislation, administrative adjudication, the control of administration, and special problems in economic balancing and proprietary activities. 6 s.h.
[Not offered in 1946-47]
244. Administrative Law.-The law of the administrative process, including the nature of regulatory authority, the status and liability of public officers, administrative tribunals and judicial review of administrative action. 3 s.h.
[Not offered in 1946-47]
252. Spanish-American Constitutionalism.-A comparative study of the nature, sources, and use of political authority in the constitutional law of Argentina, Chile, Colombia, and Uruguay. 3 s.h. Associate Professor Gibson
271. Sociopolitics and Capitalism.-Labor and labor policies in Western Europe and the United States in the nineteenth and twentieth centuries; "social security" during and after the war. 3 s.h. Professor von Beckerath
291. Municipal Government.-A study of problems relating to the structural system and activities of municipalities in the United States. 3 s.h.

Professor Rankin
292. Municipal Administration.-A study of principles and methods of municipal administration in the United States. 3 s.h.

Professor Rankin

## DEPARTMENTAL MAJOR

Prerequisite: Political Science 61-62.
Major Requirements: Eighteen semester hours of work in the Department above course 61-62, including at least nine semester hours in Senior-Graduate courses.

## PSYCHOLOGY

IROFESSOR LUNDHOLM, CHAIRMAN ; PROFESSORS RHINE AND ZENER; ASSOCIATE PROFESSOR ADAMS; VISITING ASSISTANT PROFESSOR ANSBACHER; DR. KOCH 91. Introduction to Psychology.-3 s.h.

Professor Zener; Visiting Assistant Professor Ansbacher; Dr. Koch
96. Applied Psychology.-3 s.h.

Visiting Assistant Professor Ansbacher
103. Conation and Our Conscious Life.-3 s.h. Professor Lundholm
104. Comparative Psychology.-3 s.h. Associate Professor Adams
106. Abnormal Psychology.-3 s.h. Professor Lundholm
110. Applied Social Psychology.-3 s.h.

Dr. Косн
[Not offered in 1946-47]
111. Advanced General Psychology: Learning, Memory, Perception, Thinking.-3 s.h. Professor Zener
[Not offered in 1946-47]
112. Advanced General Psychology: Action, Motivation, Emotion.-3 s.h. [Not offered in 1946-47] Professor Zener
115. Psychology of Personality.-3 s.h. Professor Rhine
116. Psychology of Adjustment.-3 s.h. Professor Rhine
[Not offered in 1946-47]
122. Psychology of Aesthetics.-3 s.h.
128. Psychology of Belief.-3 s.h.

Professor Lundholm
[Not offered in 1946-47]
204. Motivation and Learning.-3 s.h.

Prófessor Lundholm
Professor Zener
206. Social Psychology.-3 s.h.

Associate Professor Adams
207. Psychology of Memory, Thinking, Perceiving.-3 s.h.

Professor Zener
209. Experimental Methods in Human Psychology.-4 s.h.

Professor Lundhol,m
212. Physiological Psychology.-3 s.h.
215. Developmental Psychology.-3 s.h. Associate Professor Adams
223. Abnormal Psychology.-3 s.h.

Professor Lundholm
226. Psychology: Historical and Theoretical.-3 s.h. Professor Zener

231-232. Introduction to Research.-2 or 3 s.h. for one semester.
Professors Lundholm, Rhine, and Zener;
Associate Professor Adams; Dr. Koch
NAVY V-12 COURSES
PS1. Psychology I-General.-May be substituted for Psychology 91. 3 s.h.

PS2. Psychology II-Abnormal.-May be substituted for Psychology 106. 3 s.h.

PS3. Social Psychology.-May be substituted for Psychology 110. 3 s.h. DEPARTMENTAL MAJOR
Prerequisites: Psychology 91 and Zoology 1 and 2 or equivalent in biology.
Major Requirements: Eighteen semester hours in psychology in addition to Psychology 91, at least six semester hours of which must be taken in SeniorGraduate courses.

## RELIGION

## PROFESSOR MYERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS CANNON, CLARK, ORMOND, SPENCE, AND STINESPRING; ASSISTANT PROFESSOR CRUM ; AND MRS. SPENCE

The minimum uniform requirement in Religion may be fulfilled by completing six semester hours in any of the following courses: 1-2, 51-52, 101-102, 103-104, 114, 163, 167-168, 169-170, 181-182, 183. Classes in these courses are limited to fifty students.

1. The English Bible.-Survey of the contents of the historical and prophetic books of the Old Testament with particular reference to the literary, historical, and religious values. Required of all students majoring in religion, and is open to others as an elective in the Freshman year. 3 s.h. ( $\mathrm{E} \& \mathrm{w}$ )

Professors Myers and Ormond; Assistant Professor Crum; and Mrs. Spence
2. The English Bible.-Study of the Psalms, wisdom literature, and the literature of the New Testament with special attention given to the literary, historical, and religious values. Required of all students majoring in religion, and is open to others as an elective in the Freshman year. 3 s.h. ( $\mathrm{E} \& \mathrm{w}$ )

Professor Ormond; Assistant Professor
Crum; and Mrs. Spence
51. The History of the Hebrew People.-A study of the Hebrew people that gives attention to their political history, their religious and social institutions, their literary development, with special reference to their contributions to civilization. For Sophomores; not open to students who have had Religion 1. 3 s.h. (e \& w)

Professor Myers; Assistant Professor
Crum; and Mrs. Spence
52. New Testament Life and Literature.-A study of the literature of the New Testament, its historical background, and its religious value. For Sophomores; not open to students who have had Religion 2. 3 s.h. (E \& w)

Professor Myers; Assistant Professor Crum; and Mrs. Spence
101. The Social Teachings of the Prophets and Jesus.-A study of the social teachings of the Old Testament prophets and of the social ideas of Jesus as they appear in the four gospels. Not open for credit to students who take Religion 103 or 114.3 s.h. (w)

Professor Ormond
102. The Christian Church in the Social Order.-This course will deal with the Christian Church in its service to society and its relation to other social institutions. 3 s.h. (w)

Professor Ormond
103. The Prophets of the Old Testament.-In this course a study is made of the history and nature of prophecy, with particular attention being given to the messages of the outstanding pre-exilic literary prophets. Not open for credit to students who take Religion 101. 3 s.h. (e \& w) Professor Myers
104. The History and Religion of the Jews to the Roman Period.-The work in this course is based largely on exilic and post-exilic prophecy, the wisdom literature, and the earlier apocalyptic and apocryphal literature. 3 s.h. (w)

Professor Myers
114. The Life and Teachings of Jesus.-This course considers the period in which Jesus lived, the record of his life, and the meaning of his teachings as recorded in the Synoptic Gospels. Not open for credit to students who take Religion 101. 3 s.h. (E \& w)

Professor Myers
163. Religious Education of Children.-An analysis of the religious life, interests and capacities of children; including a study of the problems, objectives, methods, and materials involved in teaching religion to children. Directed to the needs of the lay workers in the church. 3 s.h. (E)

Mrs. Spence
167. Contemporary Religious Problems.-A course that deals with the main interests of life from the standpoint of their social and religious significance. 3 s.h. (E)

Professor Spence
168. Masterpieces of Great Religious Literature.-This course is devoted to the religious thought in the literature from the second to the twentieth centuries, with special attention given modern religious poetry. 3 s.h. (E)
[Old number SR.270.]
Professor Spence
169. Character Problems.-The psychology of adolescence and the problems of youth in character building, with attention to the character education agencies in local communities. 3 s.h. (e \& w) Assistant Professor Crum
170. Religion and the Family.-A study of marriage and American home life with emphasis upon contemporary ethical and religious aspects. 3 s.h. ( $\mathrm{E} \& \mathrm{w}$ )

Assistant Professor Crum
181. The Nature and Early Development of Religion.-Introduction to the early history of religion, the beliefs and practices of the more primitive peoples, and the religious life of the ancient world. For Juniors and Seniors. Not open for credit to students who take Religion 183. 3 s.h. (w)

Professor Cannon
182. Living Religions of the World.-A survey of the religious systems of India, China, and Japan, followed by a study of Judaism, Mohammedanism, and Christianity, the object being to trace the historical development of each religion. For Juniors and Seniors. Not open for credit to students who take Religion 183. 3 s.h. (w)

Professor Cannon
(Old number 282.)
183. The Religious and Social Contributions of the World's Great Re-ligions.-A survey of the world's great religions to discover and appraise their cultural and religious values. Not open for credit to students who take Religion 181 or 182.3 s.h. (w)

Professor Spence
193. A Study of Materials Suitable for Public School Courses in Religion and Ethics, including the English Bible and other religious literature. 3 s.h. (E)

Assistant Professor Crum
201-202. First Hebrew.-A study in the forms of the Hebrew language with reading of selected Old Testament narratives. 6 s.h. (w)

Professor Stinespring
207-208. Second Hebrew.-Samuel or Kings the first semester and Isaiah the second. 6 s.h. (w)

Professor Stinespring
211-212. Hellenistic Greek.-Designed for beginners to enable them to read the Greek New Testament. 6 s.h., provided the student takes six semester hours in New Testament Greek the following year. 6 s.h. (iv)

Professor Clark
265. Religious Drama.-A historical survey of the relation between religion and drama, a study of the uses and underlying principles of religious drama, and a critical examination and interpretation of selected dramatic productions. 3 s.h. (w)

Professor Spence
268. Religious Drama Construction and Production.-Project work in the creation and production of religious drama and pageants. Practice in the selection, staging, lighting, and direction of religious plays. Construction of dramatic programs of worship. 3 s.h. (w)

Professor Spence

## DEPARTMENTAL MAJOR

Prerequisite: Religion 1-2, or 51-52.
Major Requircments: A major in the Department of Religion consists of eighteen semester hours of work, exclusive of courses primarily for Freshmen,
selected with the approval of the instructor under whose supervision the student does his major work.

## DEPARTMENTAL HONORS PROGRAM

General Rules:
I. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equivalent of sixty semester hours of work.
II. The minimum amount of work that may be taken in the Department of Religion shall be the equivalent of twenty-four semester hours, and the maximum shall be the equivalent of thirty-six semesters hours. Of this, the work done in the Honors tutorials shall count fifteen hours, six hours for the Junior year, six hours for the Senior year, and three hours for the comprehensive examination at the end of the Senior year.
III. The related work, which shall constitute at least two fifths of the Honors program, that is, the equivalent of twenty-four semester hours, must be distributed among not less than two departments, unless the departmental committee gives special permission for the student to take his related work in one department.

## Prerequisite:

The minimum requirement for admission to Honors in Religion is the completion of a course in Religion during the Sophomore year on which the student makes at least a grade of "B."

## Normal Program:

The normal program for the Honors student in the Junior year shall consist of the Honors tutorial, two courses in the Department of Religion, and two courses in related departments; in the Senior year the work shall consist of the Honors tutorial, one and one-half courses in Religion, and two in related departments.

## General Honors Examinations:

Two comprehensive written examinations and a supplementary oral examination will be held at the end of the Senior year to test the student's knowledge of the special field in which he has done his Honors work.

## ROMANCE LANGUAGES

PROFESSOR WEBB, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR DAVIS, SUPERVISOR OF FRESHMAN INSTRUCTION IN FRENCH AND SPANISH; PROFESSORS COWPER, JORDAN, AND LUNDEBERG; ASSOCIATE PROFESSOR WALTON; ASSISTANT PROFESSORS BRIDGERS, DOW, LAIDLAW, NICHOLS, PREDMORE, QUYNN, RAYMOND AND YOUNG; SRA. DE GUERRA, MRS. DILLINGHAM, MME. DOW AND MR. SLAY
The courses in French from 1 to 52 inclusive, and $57-58$ are for the general student. They give a reading knowledge of standard French and furnish an introduction to French letters. Courses 55-56, 107, 127-128, and 217 offer training in the French language. The literary courses are devoted to the systematic study of classical and modern French literature. Advanced students are offered an introductory course in Old French and Old French literature. Those planning to teach will find in course 218 a treatment of the teaching of French.

The course in Italian includes the reading of Dante's Inferno.
The courses in Spanish from 1 to 68 inclusive are for the general student. Their objective is the attainment of ability to read the language with sufficient ease to be able to interpret standard literary Spanish. Courses 71 and 72, 173 and 174,253 , and 260 offer further training in the oral and written use of the language. The remaining courses are devoted to the interpretation of modern and classic Spanish and Spanish-Americn literature,

## FRENCH

1-2. Elementary French.-6 s.h. (w \& E)
Professors Cowper and Webb; Associate Professor Walton; Assistant Professors Dow, Laidlaw, Predmore, Raymond and Young; Mr. Slay
3-4. French Prose.-Prerequisite: French 1 and 2, or two years of highschool French. 6 s.h. (w \& E)

Professors Cowper and Jordan; Associate Professor Walton; Assistant Professors Bridgers, Dow, Laidlaw and Young
51-52. Introduction to French Literature.-Prerequisite: French 3 and 4 or equivalent. 6 s.h. ( $\mathrm{w} \& \mathrm{E}$ )

Professors Cowper, Jordan and Webb; Associate Professor
Walton; Assistant Professor Young
55. Exercises in Spoken French.-1 s.h. (e)
56. Exercises in Spoken French.-1 s.h. (E)
107. French Composition.-3 s.h. (E)

Mme. Dow
Mme. Dow
108. The French Romantic Movement.-3 s.h. (E)

Professor Cowper
110. Introduction to the Poetical Works of Victor Hugo.-3 s.h. (E) Assistant Professor Dow
111. French Drama since 1850.-3 s.h. (e) Assistant Professor Young [Not offered in 1946-47]
112. French Drama since 1850.-3 s.h. (e) Assistant Professor Young [Not offered in 1946-47]
113. French Drama of the Seventeenth Century.-Selected plays of Corneille, Racine, and Molière. 3 s.h. (e) Assistant Professor Raymond
115. Masterpieces of Balzac.-A study of the outstanding examples of Balzac's art as a storyteller and creator of character. 3 s.h. (E)

Assistant Professor Bridgers
116. Balzac and His Age.-Reading of selected works of Alphonse Daudet and other continuers of Balzac's realism. Course to be conducted in French. 3 8.h. (E)

Assistant Professor Bridgers
127. Advanced French Composition.-Prerequisite: French 107 or equivalent. 3 s.h. (E)

Mme. Dow
128. Advanced French Composition.-Prerequisite: French 107 or equivalent. 3 s.h. (E) Mme. Dow

129-130. French Readings on Great Men and Events in the French Tradi-tion.-Oral work in French. Optional reading along various lines. Prerequisite: French 51-52 or equivalent. 6 s.h. (E)

Associate Professor Walton
213. French Classicism.-From Malherbe to La Bruyère, 3 s.h. (E)

Associate Professor Walton
214. French Classicism.-From La Bruyère to the Encyclopedists and Beaumarchais. 3 s.h. (E)

Associate Professor Walton
215-216. The Modern French Novel.-A survey of the novel form from the seventeenth to the twentieth centuries, with particular attention to the analysis of fundamental literary tendencies ; classicism, rationalism, romanticism, and realism. 6 s.h. (E)

Professor Jordan
217. French Phonetics.-French sounds and French spelling; pronunciation drills ; exercises in phonetic transcription and dictation, aural comprehension. Prerequisite: 3 s.h. from courses 107 or 127-128. 3 s.h. (E)
(Second semester)
Professor Webb
218. Materials and Methods.-History of the teaching of French; methods; the course of study; analysis and criticism of representative texts, tests, and examinations; objectives in the light of teaching conditions, equipment and future application. Prerequisite: French 107. 3 s.h. (e) Professor Weeb (First semester)
219. Old French.-An introduction to the Old French language and literature. The Chanson de Roland-Aucassin et Nicolette. 3 s.h. (E)

Professor Cowper
220. Old French.-Types of Old French literature. The Romances of Chivalry. 3 s.h. (E)

Professor Cowper
227. French Poetry since Théophile Gautier.-Parnassianism and symtolism. 3 s.h. (e) Associate Professor Walton
229. Survey of Eighteenth-Century Literature.-3 s.h. (E)

Professor Cowper
232. Rousseau and the Beginnings of Romanticism.-3 s.h. (E)

Professor Cowper
233. Main Currents of Modern French Literature.-A survey of the principal literary tendencies from the seventeenth to the nineteenth centuries. Selected illustrative readings from leading authors. 3 s.h. (E)
[Not offered in 1946-47]
Professor Webb

## ITALIAN

181-182. Italian.-Introduction to the language, modern Italian readings, and Dante's Inferno. 6 s.h. (E)

Professor Webb

## ROMANCE LITERATURE IN TRANSLATION

191. Romance Literature of the Renaissance in Translation.-The Renaissance in Italy: Dante, Petrarch, Boccaccio, Machiavelli. 3 s.h. (E)

Assistant Professor Bridgers
192. Romance Literature of the Renaissance in Translation.-The Renaissance in France and Spain: Rabelais, Montaigne, Cervantes, and Lope de Vega. 3 s.h. (E)

Assistant Professor Bridgers

## SPANISH

1-2. Elementary Spanish.- 6 s.h. (w \& E)
Assistant Professors Bridgers, Dow, Laidlaw, Predmorfe
and Raymond; Mrs. Dillingham and Mr. Slay
3-4. Intermediate Spanish.-Prerequisite: Spanish 1-2 or two years of high-school Spanish. 6 s.h. (w \& E)

Assistant Professors Bridgers, Davis, Dow, Nichols, Predmore, and Raymond; Sra. de Guerra

61-62. Special Oral Section.-Meeting six hours per week, to cover the work of first-year Spanish in one semester. Limited to 25 students. Primarily intended for those planning to major in Spanish. Others should register for regular section. First semester. 6 s.h. (e) Mrs. Dillingham

63-64. Special Oral Section.-Meeting six hours per week, to cover the work of second-year Spanish in one semester. Limited to 25 students. For those planing to major in Spanish. Second semester. 6 s.h. (E)

Mrs. Dillingham
65. Introduction to Modern Spanish Literature.-Prerequisite: Spanish 3-4 or equivalent. 3 s.h. (w \& E)

Professor Lundeberg; Assistant Professors Bridgers, Davis; and Sra. de Guerra
66. Introduction to Spanish Literature of the Golden Age.-Prerequisite: Spanish 65 or equivalent. 3 s.h. (w \& E)

Professor Lundeberg; Assistant Professor Davis; and Sra. de Guerra
68. Introduction to Spanish-American Literature.-Study of typical works in the field of the novel, chiefly of the modern period; lectures on literary, social, and cultural backgrounds and tendencies; collateral readings and reports. This course is offered as an alternate to Spanish 66 and will be accepted in fulfillment of major and graduation requirements. 3 s.h. (w \& E) Assistant Professor Bridgers and Sra. de Guerra
Spanish 65-66 or 65-68 are the basic prerequisites to all higher courses.
71. Elementary Conversation.-Prerequisite: completion of Spanish 4 or equivalent and approval of instructor. Normally this course should be taken concurrently with Spanish 65-66. (Enrollment limited to twenty students.) 1 s.h. (E)
72. Elementary Conversation.-1 s.h. (E) Mrs. Dillingham
155. Survey of Spanish-American Literature.-Reading and discussion of representative texts illustrating the cultural development from Colonial times through Romanticism. Prerequisite: Spanish $65-66$ or special permission. 3 s.h. (E)

Assistant Professor Nichols
156. Survey of Spanish-American Literature.-Reading and discussion of representative works in the field of the novel, drama, and poetry of the past century, including consideration of native types such as the gaucho and the indio together with brief introduction to the modernista movement. Prerequisite: Spanish $65-66$ or special permission. 3 s.h. (E)

Assistant Professor Nichols
157-158. The Modern Spanish Theater.-Prerequisite: Spanish 65-66 or special permission. 6 s.h. (E)
[Not offered in 1946-47]
173. Advanced Oral Spanish.-Prerequisite: Spanish 65-66 and 71-72 or equivalent. 3 s.h. (E)

Sra. de Guerra
174. Advanced Spanish Diction.-Corrective exercises in oral expression; interpretative recitations and dialogues; memorization of selected prose and verse. Prerequisite: Spanish 173 with minimum grade of C. 3 s.h. (E)
(Enrollment limited to 18)
Sra. de Guerra
253. Spanish Phonetics.-The sounds of the Spanish language; sound changes; exercises in transcription; regional pronunciation; intonation; limited use of electrical recording machines. Prerequisite: Spanish 65-66. 3 s.h. (E)
(Enrollment limited to fifteen students)
Professor Lundeberg
255-256. Studies in Spanish-American Literature.-The course will center about the development of national and continental consciousness in SpanishAmerican literary history from Colonial times to the present day, although special emphasis will be given to modern literature. Extensive individual investigations and reports with adequate training in bibliography. 6 s.h. (E)

257-258. Old Spanish Language and Literature.-First semester: The historical development of the language together with illustrative readings. Second semester: The literature of the Middle Ages and early Renaissance. Available to properly qualified students upon consultation with the instructor. 6 s.h. (E)
260. Advanced Syntax and Composition.-Systematic review of Spanish syntax; free oral and written composition; selected translation assignments; epistolary forms, etc. Conducted mainly in Spanish. Prerequisite: Spanish 65-66. 3 s.h. (E)

Professor Lundeberg
(Enrollment limited to fifteen students)
261-262. Modern Spanish Novel.-The evolution of the novel from the costumbrista writers through the generation of 1898. Prerequisite: 6 s.h. from courses 155 to 158 inclusive, or $65-66$ with permission. 6 s.h. (E)

Professor Lundeberg
265. Golden Age Literature: Cervantes.-The Novelas ejemplares; analytic study of the tales, their style, literary importance and influence. Prerequisite: 6 s.h. from courses 155 to 158 inclusive or $65-66$ with permission. 3 s.h. (E)
[Not offered in 1946-47]
Professor Lundeberg
266. Golden Age Literature: Golden Age Drama.-Study of representative plays of the period with emphasis on the theme of honor. Prerequisite: 6 s.h. trom courses 155 to 158 inclusive, or 65-66 with permission. 3 s.h. (E)
[Not offered in 1946-47]
Professor Lundeberg

## NaVY V-12 COURSES

Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language 3-4 may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses.

## DEPARTMENTAL MAJOR

Prerequisites: French 51-52, or equivalent, for French. Spanish 65-66, or 65-68, or equivalent, for Spanish.

Major Requirements: In French, eighteen semester hours of work must be completed in courses numbered 107 or above and must include: (a) six semester hours from the group 107, 127-128, 217; (b) six semester hours of literature in courses numbered 213 to 233.

In Spanish, eighteen semester hours of work must be completed in the courses numbered above 100 and must include a minimum of six semester hours in the courses 253-266.

Students desiring the recommendation of the Department for the teaching of French will take, in addition, course 218.

## DEPARTMENTAL HONORS PROGRAM

Prerequisites: Completion of $51-52$ by the end of the Sophomore year in a manner satisfactory to the Departmental Committee.

Honors work in French includes:
(a) Training in the use of written and oral French; composition, résumé, and literary commentary in French. Three semester hours each semester of Junior and Senior years, total twelve semester hours.
(b) Readings in French literature.
(1) Survey of chief authors. Three semester hours each semester or twelve semester hours.
(2) Genre studies beginning with the modern novel. Three semester hours each semester or twelve semester hours.
(c) Comprehensive examination.
(d) Related work: Twenty-four semester hours.

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, DIRECTOR OF GRADUATE AND UNDERGRADUATE STUDIES; PROFESSOR HART; ASSOCIATE PROFESSORS GILLIN, SCHETTLER, AND THOMPSON
91-92. General Sociology.-The same as course 101, except that it gives an additional hour of credit to permit the introduction of more concrete materials, and admits Sophomores with an average grade of not less than "C" during the Freshman year. 6 s.h. (E)

Professor Jensen;
(E \& w) Associate Professor Schettler
101. General Sociology.-An introduction to the scientific study of social life; its origin, evolution, and organization as illustrated by the study of a number of concrete social problems. This course is repeated each semester and it, or its equivalent course 91-92 or course 131-132, is prerequisite to all other courses in sociology. 5 s.h.
[Not offered in 1946-47]
102. General Sociology.-The same as course 101. 5 s.h.
[Not offered in 1946-47]
109. Sociology of the South.-The developing regional organization of the world economy studied with especial reference to Southern life and problems. A survey of the composition and distribution of population, races and race relations; economic conditions underlying population, race factors, and culture of the South. Primary emphasis is upon social change and its control. Prerequisite: course $91-92,101$ or $131-132$. 3 s.h. (w)

Associate Professor Thompson
111. Introduction to Child Welfare.-A special course in child welfare for Juniors and Seniors. Prerequisite: course 91-92, 101 or 131-132. 3 s.h. (w) Professor Jensen
114. Race Relations.-Against the background of a preliminary study of interracial experiences in other parts of the world an effort is made to understand more clearly the racial situation in the Southern States. Prerequisite: course $91-92,101$ or 131-132. 3 s.h. (w)

Associate Professor Thompson
121. Personality and Human Values.-Problems of college students in adjusting their personalities to an age of science, technology, social conflict, and doubt. Prerequisite : course 91-92, 101, or 131-132. 3 s.h. (w)
122. Personality and Culture.-Problems of college students in adjusting their personalities to the social institutions of which they are, or are to be, parts. Prerequisite: Sociology 91-92, 101 or 131-132. 3 s.h. (w)
131. General Anthropology.-A survey of mankind and its cultural activities from the earliest times to the present day; fossil man and the development of the present species; modern races and varieties; first steps and later elaborations in tools and other material creations, language, family life and social organization, political institutions, art, and religion. Special attention will be given to the simpler societies. 3 s.h. (w)
132. Cultural Anthropology.-A study of the dynamics of culture and its varieties, using materials from the simpler societies in various parts of the world; functions of culture, psychological aspects, the individual and culture, environmental aspects, cultural growth and change, acculturation; applications of these concepts to certain contemporary problems. Prerequisite: course 9192, 101 or 131. 3 s.h. (w)
205. Social Pathology.-A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society: poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities and unstandardized commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. Prerequisite: course 91-92, 101 or 131-132. 3 s.h. (w)

Professor Jensen
206. Criminology.-A study of the original tendencies of man and the problem of socializing these tendencies; the relations of physical and mental defectiveness and untoward influence in the home and neighborhood to crime; the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. Prerequisite: course 91-92, 101 or 131-132. 3 s.h. (w)

Professor Jensen
212. Child Welfare.-A study of heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. Prerequisite: course 91-92, 101 or 131-132. 3 s.h.

Professor Jensen
[Offered in Summer Session, 1946]
213. Constructive Social Policies.-An intensive study af the theories and legislation dealing with such problems as compensation, vocational reeducation, and other methods of social insurance and social improvement. Prerequisite: course 91-92, 101 or 131-132. 2 s.h. (w) Professor Jensen
[Not offered in 1946-47]
215. Rural Sociology.-A study of the societies developed by people who settle the land and exploit it for a livelihood; patterns of settlement; culture; peasant, farmer, and folk societies; and rural institutions. Special attention is given to the plantation and to the rural problems of the South. Prerequisite: course $91-92$, 101, or 131-132. 3 s.h. (w) Associate Professor Thompson
216. Urban Sociology.-The city and civilization. This course studies the inner life and problems of the city and its function in the larger regional and world community which it nucleates. Prerequisite: course 91-92, 101, or 131132. 3 s.h. (w)

Associate Professor Thompson
217. Race and Culture.-An analytical study of racial and cultural relations and problems of the Indian, the Negro and other minority groups in historical and contemporary situations. Prerequisite: course 91-92, 101, or 131132. 3 s.h. (w)

Associate Professor Thompson
218. Community and Society.-This course studies the dual aspect in which social life presents itself: (1) as a population group or groups, and (2) as a constellation of institutions. Prerequisite: course 91-92, 101, or 131-132. 3 s.h. (w)

Associate Professor Thompson
225. Statistical Methods in Sociology.-Deals with the processes of definition, classification, measurement, tabulation, association, correlation, comparison of averages and of percentages, causation, prediction, preparation and interpretation of charts and graphs, as applied to and illustrated by sociological data. Prerequisite: course 91-92, 101, or 131-132. 3 s.h. (w)

Professor Hart
227. Emigration and Immigration.-A study of territorial movements of population with special reference to Europe and America. Causes and extent of migration; its effect upon American and European society; origin and characteristics of immigrant groups and their organization in the New World; problems, agencies, and processes of assimilation. Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Jensen
[Not offered in 1946-47]
236. Social Ethics.-A study of the sociological fundamentals underlying social ethics, including the controversy between materialistic and idealistic social thinkers, the nature of personalities and of social organizations, the nature of social values, types of social interaction and their effects upon general social values, underlying principles and facts of social change and the bearings of all these upon certain social problems. 3 s.h. (w) Professor Hart
237. Indians of North America.-Origin and early developments of aboriginal populations; development and distribution of tribes, their customs and languages; Indian influences on Euro-American culture; present status of the Indians; considerations of the culture-environment relationship in the light of comparisons between aboriginal and modern American life. Prerequisite : course 131. 3 s.h. (w)
238. Anthropological Backgrounds of Latin America.-The aboriginal races and cultures of Latin America; origins, development; distribution and variations at the time of the Discovery; Iberian and African racial importations of the past four hundred years; the contemporary fusion and mixtures in such areas as Brazil, the Andean highlands, etc., and their relation to certain contemporary problems. Prerequisite: course 131. 3 s.h. (w)
239. Acculturation and Cultural Synthesis.-The blending of customs and other problems arising from the contact of peoples. 3 s.h. (w)
240. The Peoples of Africa.-A survey of the aboriginal peoples and cultures of Africa from the earliest times to the present day, with special attention to the areas of origin of the American Negro. Prerequisite: course 131. 3 s.h. (w)
242. Marriage and the Family.-An analysis of contemporary marriage and family experience with emphasis on its functions, problems, resources, and values. Not open to students who have received credit for Sociology 299 or Religion 170. Prerequisite: course 91-92, 101, or 131-132. 3 s.h. (w)

Professor Hart
251. Special Problems in Social Pathology.-Research projects in social and personal disorganization, limited to advanced students with the approval of the instructor. Prerequisite: course 205 or its equivalent. Both semesters. 1 to 3 s.h. (w)

Professor Jensen
252. Education and Social Control.-A study of education as an agency of social progress from primitive times to the present. Prerequisite: course 91-92, 101, or 131-132. 2 s.h.
[Not offered in 1946-47]
282. Public Opinion.-The fundamental problems and processes of social control and social change in democratically organized groups; the nature and development of public opinion, its cultural and psychological bases, the role of leadership, pressure groups, prestige, propaganda, censorship, advertising, the press, the motion picture, the radio, the graphic arts, etc., in its management and dissemination. 3 s.h.

Associate Professor Schettler

## NAVY V-12 COURSES

S1. Sociology I.-Anthropology. 3 s.h.
S2. Sociology II.-May be substituted for Sociology 91. 3 s.h.

## DEPARTMENTAL MAJOR

Students desiring to take a major in sociology are required to complete course $91-92$ or 101 or 102 or 131-132 and twelve additional hours in the Department, at least six of which must be from courses numbered 200 or over.

## ZOOLOGY

1'ROFESSOR GRAY, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES ; ASSISTANT PROFESSOR BOOKHOUT, SUPERVISOR OF FRESHMAN INSTRUCTION ; ASSISTANT PROFESSOR JEFFERS, SUPERVISOR OF FRESHMAN INSTRUCTION (WOMAN'S COLLEGE) ; PROFESSORS HARGITT, PEARSE; ASSISTANT PROFESSOR JOHNSON ; DRS. HORN, MAGALHAES, WHARTON ; MR. BOYER; MISS JONNES; AND ASSISTAN゙TS

UNDERGRADUATE COURSES

1. General Zoology.-A brief survey of the animal kingdom. 4 s.h. (w \& e) Assistant Professors Bookhout and Jeffers; and Staff
2. Animal Biology.-The principles of biology as applied to animals. Prerequisite: Zoology 1. 4 s.h. (w \& E)

Professor Gray and Dr, Magalhaes; and Staff
53. Comparative Vertebrate Anatomy.-A study of the anatomy and evolution of the organ systems of vertebrates. Prerequisites: Zoology 1 and 2. 4 s.h. (w \& e) Professor Gray; Dr. Magalhaes and Miss Jones
92. General Embryology.-A study of the fundamental principles of embryology as illustrated in the frog, chick, and mammal. Prerequisite: Zoology 53. 4 s.h. (w \& e) Assistant Professors Jeffers and Johnson; and Miss Jones
109. Evolution.-The facts and theories of organic evolution. Prerequisite: Two years of Zoology. 2 s.h. (w) Assistant Professor Johnson
110. Introduction to Genetics.-The principles and practical applications of genetics as applied to animals, including man. Prerequisite: One year of Zoology. 2 s.h. (w)

Assistant Professor Johnson
151. Comparative Physiology.-The primary functions of animals of all groups and a more detailed study of the physiological processes in mammals. Prerequisites: Zoology 53 and one year of chemistry. 4 s.h. (w)

Dr. Magalhaes
156. Vertebrate Histology.-The microscopic structure of normal tissues and organs of the vertebrate body. Training will be given in the preparation of material for microscopic study. Prerequisite: Zoology 53. 4 s.h. (w)

Professor Hargitt
161. Animal Parasites.-With emphasis upon those infesting man. Prerequisite: one year of Zoology. 4 s.h. (w)

Professor Pearse
196. Seminar: Current Developments in Zoology.-Prerequisites: Zoology 53, 92, 151. Open only to Seniors. 2 s.h. (w)

Staff

## FOR SENIORS AND GRADUATES

204. Advanced Parasitology.-Lectures, conferences, readings, and laboratory work, dealing with practical and theoretical matters relating to anima! parasites. Offered in alternate years. Prerequisite: Zoology 161. 4 s.h. (w)

Professor Pearse
219-220. Special Problems.-Senior majors who have had proper training may be permitted to carry on special work. Permission must be obtained from the Director of Undergraduate Studies and the instructor under whom the student wishes to work. Not more than 4 s.h. (w \& E)

Staff
222. Entomology.-A study of anatomy, physiology, embryology, and classification of insects. Prerequisite: one year of Zoology. 4 s.h. (w)

Professor Gray
224. Vertebrate Zoology.-A study of life histories, adaptations, ecology and classification of vertebrate animals. Prerequisite: Zoology 53. 4 s.h. (w)

Professor Gray
229. Endocrinology.-The structure, physiology, and embryology of the endocrine glands. Lectures, reading assignments, reports, and laboratory work. Prerequisites: Zoology 53, 92, and 151. 4 s.h. (w)

Assistant Professor Jeffers
274. Invertebrate Zoology.-A study of structure, function, and habits of invertebrate animals under normal and experimental conditions. Field trips will be made to study, collect, and classify animals in their natural habitats. Offered in alternate years. Prerequisites: Zoology 1 and 2. 4 s.h. (w)

Assistant Professor Bookhout
276. Protozoology.-The morphology, physiology, taxonomy, and culture of protozoa. Offered in alternate years. Prerequisites: Zoology 1 and 2. 4 s.h. (w)

Assistant Professor Bookhout
RELATED COURSES, ONE OF WHICH MAY BE COUNTED TOWARD
A MAJOR IN ZOOLOGY
Botany 101. Principles of Heredity. -3 or 4 s.h. (w)
Assistant Professor Perry
Botany 103. General Bacteriology.-4 s.h. (w \& E) Professor Wolf
Botany 202. Genetics.-4 s.h. (w) Assistant Professor Perry

## DEPARTMENTAL MAJOR

Prerequisites: Zoology 1 and 2.
Major Requirements: Twenty-four semester hours including courses 53, 92, 151. The remaining twelve hours may be from any other courses for which the student is eligible.

## DEPARTMENTAL HONORS PROGRAM

For admission to candidacy for Honors in zoology a student is expected to have completed zoology courses 1,2,53, 92 and not less than eight semester hours of chemistry.

Honors work consists of regular courses and independent study; the program, however, will not be the same for all students. Zoology 151 is required of all zoology majors; the number and nature of other courses to be taken in zoology and all related subjects will depend upon the needs and interests of the student. The usual number of semester courses will be four to six in zoology and six in other subjects in the Natural Science Group.

In addition to regular courses each student shall read in such fields as history of biology and zoological theories, or in special fields, and shall undertake a special research problem under the direction of some member of the Staff whom the student may select. The student may be asked to prepare written reports on his readings and must present a written report on his research problem. Readings and problem count for nine to twelve semester hours.

At the end of the Junior year an examination will be given to test the student's ability to correlate material and to determine his fitness to continue in the Honors Group. At the end of the Senior year a special comprehensive examination covering the entire field of study must be passed.

## THE COLLEGE OF ENGINEERING

## ADMISSION

Admission to the College of Engineering of Duke University is on a selective basis, dependent upon the ability, attainments, and character of the applicant. No student is admitted until the Council on Admissions has received for him a scholastic record from school or college, a certificate of vaccination and of good health, and satisfactory evidence of good character and ability. Prospective students and relatives are invited to visit the University and the College of Engineering in particular. This would be advantageous to the applicant since it would enable him to acquaint himself with the facilities of the University, and to discuss possible courses of study.

Certain days are announced in the University Calendar each year for the registration, classification, and sectioning of students. Those students who are admitted later than the dates announced must pay to the Treasurer $\$ 5.00$ additional for the privilege of matriculating.

An applicant for admission to the Freshman Class in engineering must have completed at least fifteen units of preparatory work, partly in required and partly in elective subjects. A unit represents a year of work in a subject in an accredited secondary school, provided the work done in that subject is approximately one fourth of the annual amount of work regularly required in the school.

The subjects in which this credit may be offered and the maximum amount of credit acceptable in each subject are given in the following table :
UNITS UNITS


## ADMISSION BY CERTIFICATE

Applicants able to submit certificates of proficiency from accredited schools in subjects accepted for admission to the Freshman Class will be
admitted without examination. These certificates must be properly made out on the regular blanks furnished by the University, signed by the principal of the school from which the applicant comes, and presented before or at the opening of the academic year. The applicant must have completed the course of the school from which he comes.

At least nine and one half of the fifteen units required for admission must come from the following :

## Requircd Units

English . ................................................................. . . . . 3 units
A Foreign Language ................................................... . . . 2 units
*Science .................................................................... 1 unit
History . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 unit
†Algebra ............................................................. $11 / 2$ or 2 units
Plane Geometry ......................................................... . . . 1 unit

## Elective Units

In addition to the above required units, sufficient elective units must be offered to make a total of fifteen. It is recommended that these electives be chosen from the following list:

| Algebra | 1/2 unit |
| :---: | :---: |
| Solid Geometry | $1 / 2$ unit |
| Trigonometry . . . . . . a | $1 / 2$ unit |
| $\ddagger$ German or French or Latin or Spanish or | 4 units |
| History or Civics (not the required unit) | 3 units |
| Physics or Chemistry or Biology (not the required unit) | 3 units |

## ADMISSION BY EXAMINATION

Students who present fifteen units for admission from schools not accredited by the University, and students who present the proper units but whose grades are not acceptable, are required to validate their units by entrance examinations in English and in mathematics and such other tests as the University may prescribe, inchuding the test required by the North Carolina College Conference.

Students who have not the required units in English or in mathematics but who are otherwise acceptable must, before admission, clear this deficiency by entrance examinations.

## ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing from other approved institutions under the following conditions: all applicants must have fulfilled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions, and have honorable dismissal from the institutions they previously attended.

[^42]Applicants for advanced standing should present, so far as possible, subjects corresponding to those required at Duke University. Students admitted to advanced standing may not during their first semester elect more than the minimum number of hours required of the class which they enter except by permission of the Dean. Further, in addition to other requirements, a minimum of one full year in residence at Duke University with the satisfactory completion of at least thirty semester hours of work approved for Seniors, with an average grade of "C," is required of all candidates for the Bachelor's degree.

Students who have transferred from other colleges must, in order to make their provisional classification final, pass during their first year of residence not less than the equivalent of four year-courses with an average grade of "C" or higher.

The date for the registration and classification of students with advanced standing from other institutions is announced in the University Calendar. Students who are admitted later than this date are required to pay to the Treasurer $\$ 5.00$ additional for the privilige of matriculating.

## FRESHMAN WEEK

The week immediately preceding the opening of College is set aside for the induction of Freshmen. During this period health examinations. psychological tests, and placement tests are given in English and mathematics. Sectioning in these two subjects is based on the grades made on the placement tests. The Freshmen are divided into groups for instruction in the use of the Library, in the regulations of the student body, and in all matters pertaining to the adjustment of the individual to a new environment. Attendance upon these exercises is required of all Freshmen.

## SPECIAL STUDENTS

Students of mature age not fully prepared to enter the Freshman Class may be admitted as special students and allowed to enroll for such work as they are prepared to carry. Further, they are required to take fifteen hours of classwork a week.

## FEES AND EXPENSES

Information as to fees and expenses and room accommodations applicable to the College of Engineering is given, along with similar information for Trinity College and the Woman's College, on pages 167-172.

# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING 

## GENERAL STATEMENT

The studies for the degree of Bachelor of Science in Civil, Electrical, or Mechanical Engineering are designed for students who are preparing for civil, electrical, and mechanical or aeronautical engineering as a profession and lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E. All curricula of the College of Engineering are fully accredited by the Engineers' Council for Professional Development, reccgnized accrediting agency in the field of engineering education.

Each of these degrees requires one hundred and thirty-eight semester hours of work of which one hundred and twenty must be completed with an average grade of "C." Six semester hours of electives must be taken in the Department of Economics or Political Science. If a foreign language is elected, it must be taken two years unless a student has sufficient entrance credits to enable him to pursue a more advanced course.

Prospective students should note that immediately after the final examinations in May or June a three-weeks course in surveying is given under the direction of the Summer Session. This course is required of all civil engineering students at the end of their Freshman year and is required of all other engineering students before graduation.

Courses described in the Navy V-12 Bulletin No. 101 may be offered in place of certain required courses outlined in this bulletin for the civil, electrical, and mechanical curricula.

## GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

GROUP I
Civil Engineering
Freshman Year
FIRST SEMESTER SECOND SEMESTER

$17 \quad \overline{17}$
Three weeks of Surveying S60 in summer. Credit 3 semester hours.
Requirements for the B.S. Degree.143
Sophomore Year
Mathematics 59 4 Mathematics 60 ..... 4
Physics 57 3 Physics 58 ..... 3
Economics 51 3 Economics 52 ..... 3
Statics G.E. 57 3 Kinetics G.E. 58 ..... 3
Surveying 61 2 Steam Engineering M.E. 55 ..... 2
Route Surveying 63 2 Route Surveying 64 ..... 2
Physical Education Physical Education
17 ..... 17
Junior Year
Strength of Materials 107 3 Hydraulics 128 ..... 3
Structures 131 4 Structures 132 ..... 4
Highway 115 3 Materials 118 ..... 3
Electrical Engineering 153 3 Electrical Engineering 154 ..... 3
Elective 3 Elective ..... 3
16 ..... 16
Senior Year
Sanitary Engineering 123 4 Sanitary Engineering 124 ..... 3
Concrete 133 3 Concrete 134 ..... 3
Railroads 119 3 Astronomy-Navigation 112 ..... 3
Heat Power M.E. 103 3 Heat Power M.E. 104 ..... 3
Mechanical Engineering Lab. 115. 1 Mechanical Engineering Lab. 116 ..... 1
Elective 3 Civil Engineering Project 143 ..... 3
Elective ..... 2
17 ..... 18
GROUP II
Electrical Engineering
Freshman Year
FIRST SEMESTER SECOND SEMESTER
Mathematics 9 ........................ S. ..... S.H. 5 Mathematics 10 ..... 5
Mathematics
Mathematics Chemistry 1 4 Chemistry 2 ..... 4
English 1 3 English 2 ..... 3
Physics 17 3 Physics 18 ..... 3
Drawing 1 2 Drawing 2 ..... 2Physical Education ................ Physical Education
1717
Three weeks of Surveying S 60 in summer. Credit 3 semester hours.
Sophomore Year
Mathematics 59 4 Mathematics 60 ..... 4
Physics 57 3 Physics 58 ..... 3
Statics 57 3 Kinetics-Mechanism 52 ..... 4
Electrical Engineering 51 3 Electrical Engineering 52 ..... 3
Economics 51 3 Economics 52 ..... 3
Steam Engineering 55 2 Physical Education
Physical Education17
Junior Year
Theory of D. C. Circuits $151 \ldots . .4$ Theory of A. C. Circuits 152 ..... 3
Hydraulics 128 .................... 3 Strength of Materials 107-109 ..... 4
Electrical Circuits Lab. 161 ........ 1 Electrical Circuits Lab. 162 ..... 1
Heat Power Engineering $103 \ldots . .3$ Heat Power Engineering 104 ..... 3
Differential Equations 131 3 Electrical Measurements 104 ..... 3
Mechanical Engineering
1 Laboratory 116 ..... 1
15 ..... 15
Senior Year
A. C. Machinery 257 3 A. C. Machinery 258 ..... 3
Electric Power Trans. 159 3 Electric Power Stations 158 ..... 2
Communication 261 3 Communications 262 ..... $+$
D. C. Machinery 155 ..... 1
Electrical Machinery Electrical Machinery Laboratory 164 ..... 1
Seminar 165 Electives ..... 6
Electives ..... 17
19
GROUP III
Mechanical Engineering
Freshman Year
FIRST SEMESTER SECOND SEMESTER
s.H. ..... S.H.
Mathematics 9 5 Mathematics 10 ..... 5
Chemistry 1 4 Chemistry 2 ..... 4
English 1 3 English 2 ..... 3
Physics 17 3 Physics 18 ..... 3
Drawing 1 2 Drawing 2 ..... 2
Physical Education Physical Education
17 ..... 17
Three weeks of Surveying S60 in summer. Credit 3 semester hours.
Sophomore Year
Mathematics 59 4 Mathematics 60 ..... 4
Physics 57 ........................... 3 Physics 58 ..... 3
Statics, G.E. 57 3 Kinetics-Mechanism 54 ..... 5
Const. Processes 51 3 Steam Engineering 55 ..... 2
Economics 51 3 Economics 52 ..... 3
Physical Education Physical Education
16 ..... 17
Junior Year
Fluid Mechanics 105 3 Machine Design 150 ..... 3
Str. of Materials 107-109 4 Aeronautics 108 ..... 3
Electrical Engg. 153 3 Electrical Engg. 154 ..... 3
Thermodynamics 101 3 Thermodynamics 102 ..... 3
M.E. Lab. 113 1 M.E. Lab. 114 ..... 2
Elective 3 Elective ..... 3
17 ..... 17Requirements for the B.S. Degree145
Senior Year
Mechanical Option
Machine Design 151 3 Industrial Engg. 158 ..... 3
Int. Comb. Eng. 155 3 Power Plants 162 ..... 3
Heating and Air Cond. 153 3 Refrigeration 154 ..... 3
M.E. Lab. 159 2 M.E. Lab. 160 ..... 2
Seminar 199 1 Seminar 200 ..... 1
Electives 5 Electives ..... 5
17 ..... 17
Senior Year
Aeronautics Option
Machine Design 151 3 Industrial Engg. 158 ..... 3
Int. Comb. Eng. 155 3 Airplane Design 172 ..... 3
Airplane Design 171 3 Airplane Engines 156 ..... 3
Aerodynamics 173 2 Aerodynamics 174 ..... 2
M.E. Lab. 159 2 Aeronautics Lab. 176 ..... 2
Seminar 199 1 Seminar 200 ..... 1
Elective 3 Elective ..... 3
17 ..... 17
Note: The Aeronautics Option for Senior Mechanical Engineering students will not be offered in 1946-47.

## COURSES OF INSTRUCTION, COLLEGE OF ENGINEERING

PROFESSOR HALL, DEAN; PROFESSOR BIRD, CHAIRMAN, CIVIL ENGINEERING; PROFESSOR SEELEY, CHAIRMAN, ELECTRICAL ENGINEERING; PROFESSOR WILBUR, CHAIRMAN, MECHANICAL ENGINEERING; ASSOCIATE PROFESSORS MEIER<br>AND REED; ASSISTANT PROFESSORS HINTON, LEWIS, MAC-<br>KICHAN, THEISS, VAIL, AND WILLIAMS; MESSRS.<br>EGERTON, ERVIN, HAINES, HARDY, JONES, KENYON,<br>KRAYBILL, PALMER

## GENERAL ENGINEERING

1-2. Engineering Drawing.-The study of mechanical drawing with emphasis on drawing parts, elementary machines, dimensioning, and working drawings; pencil and ink technique; elementary drawing board geometry, including point, line and plane relations, and elementary work in developments and intersections. 4 s.h. (E)

Staff
5. Descriptive Geometry.-The study of drawing board problems involving point, line, and plane relationships; development of solids; intersections of solids and concurrent non-coplanar forces, with emphasis on practical applications. 2 s.h. (E)

Staff
51-52. Technical Drawing.-For liberal arts students. Elementary principles of machine, structural, and topographic drawing. Nine laboratory hours. 6 s.h. (E)

Assistant Professor L. Hall
[Not offered in 1946-47]
57. Statics.-Concurrent forces, parallel forces, nonconcurrent and nonparallel forces, centroids, friction, moment of inertia. Prerequisites: courses G.E. 1-2, Mathematics 9 and 10. 3 s.h. (E)

Staff
58. Kinetics.-Translation, rotation, work, energy, and momentum. Prerequisites : courses G.E. 57, and Mathematics 59. 3 s.h. (E) Staff
107. Strength of Materials.-Elastic bodies under stress ; flexure of simple, cverhanging, fixed, and continuous beams; columns; combined stresses, etc. For Civil Engineering students, the laboratory work is included in course 118. Other students should take course G.E. 109 for laboratory. Prerequisite : course 57. 3 s.h. ( E )

Staff
109. Strength of Materials Laboratory.-Concurrent with course G.E. 107. 1 s.h. (E) Either semester.

Staff
128. Hydraulics.-Hydrostatics; flow of water through orifices, weirs, pipes, and open channels; general principles of water wheels and turbines. Prerequisite: course 57. 3 s.h. (E) Either semester.

Staff
151-152. Elements of Cartography.-For liberal arts students. Development and uses of maps and charts; scales, symbols, contours, and profiles; construction of projections; field and office computations, and control plotting; sources for compilation, and the applications of aerial photography; preliminary and final drafting, and reproduction. One-hour class and six laboratory hours. 6 s.h. (E)

Assistant Professor L. Hall
[Not offered in 1946-47]

## CIVIL ENGINEERING

PROFESSORS BIRD AND HALL; ASSISTANT PROFESSOR WILLIAMS; MR. PALMER
S60. Plane Surveying.-Use of instruments; transit, stadia, compass and plane table surveying; simple triangulation; determination of meridian by ob-
servation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, and departures; areas by planimeter methods of plotting, survey and plot of sections of the campus by stadia, and transit and tape. Eight hours a day, three weeks, Summer Session. Prerequisites: G.E. 1 and trigonometry. 3 s.h. (E)

Staff
61. Higher Surveying.-Care and adjustment of instruments ; topographical surveying; surveys and resurveys; laying out and division of land; public land system; further calculations, omitted measurements, areas by double longitude; quantities from profiles and cross sections. Prerequisite: course S60. 2 or 3 s.h. (E)

Assistant Professor Williams
63-64. Route Surveying.-Thorough drill in the calculation and laying out of simple, compound, and easement curves, widening of curves, vertical curves, setting slope stakes, ordinary earthwork computations, and mass diagrams. Prerequisite: course S60. 4 s.h. (E)

Staff
70. Civil Engineering Drawing.-Elements of topographical and structural drafting. Two three-hour drawing periods. Prerequisite: course G.E. 1-2. 2 s.h. (E)

Mr. Palmer
112. Practical Astronomy and Navigation.-Determination of time, longitude, latitude, and azimuth. Pilotage, dead reckoning, celestial navigation. Observations and calculations. Prerequisite: S60 or with the consent of the instructor. 3 s.h. (E)

Professor Bird
115. Highway Engineering.-Location, construction, and maintenance of roads and pavements; dust prevention; road economics. 3 s.h. (E)

## Professor Bird

118. Materials of Engineering.-Study and testing of materials commonly used in engineering. Prerequisite : course G.E. 107 or concurrent. 3 s.h. (E) Assistant Professor Williams
119. Railroad Engineering.-Differences between highway and railway practice affecting curves and earthwork. Frogs, switches, and crossings. Preliminary and location survey of a railway of sufficient length to secure familiarity with methods of actual practice. Paper location with estimate of cost. Prerequisite: course 63-64. 3 s.h. (E)

Professor Bird
120. Railroad Engineering.-Construction and maintenance of track and trackwork, economics, and operating conditions affecting location. Prerequisite: course 63-64. 2 s.h. (E)

Professor Bird

## 123-124. Sanitary Engineering.-

(a) Hydrology.-Factors affecting precipitation; evaporation from land and water surfaces; relation of precipitation to run-off; estimating run-off; floods and flood flows. Stream gauging.
(b) Public Water Supply.-Quantity and quality of water required; hydraulics of wells, reservoirs, works for purification and distribution of water. Standard laboratory tests for chemical and bacteriological examination of water.
(c) Sewerage.-Sewerage systems, rainfall and storm water flow, sizes of storm and sanitary sewers, sewage disposal. Standard laboratory tests of sewage. Prerequisite: course G.E. 128. 7 s.h. (e) Professor Hall.
131. Steel Structures-Stresses.-Roofs, parallel chord bridges under all types of loads, inclined top chord bridges, including subdivided panels, wind bracing. Prerequisite: course G.E. 57. 4 s.h. (E)

Professor Bird
132. Steel Structures-Design.-Built beams, plate girders, tension members, compression members, tension and compression members, end posts, stringers, floor beams, pins, plates, etc. Drafting. Prerequisites: courses G.E. 107 and 131. 4 s.h. (E)

Professor Bird
133. Reinforced Concrete.-Theory and design of reinforced concrete beams, slabs, columns. Prerequisite: course G.E. 107. 3 s.h. (E)

Professor Bird
134. Advanced Reinforced Concrete--Retaining walls, foundations, buildings, rigid frames. Prerequisites: courses 133 and 135. 3 s.h. (E)

Professor Bird
135. Soils and Foundations.-Fundamental relations and soil classification, Atterberg limits, capillary phenomena and permeability of soils, soil stabilization. Different behavior of granular and plastic soils affecting the foundations of structures, earth pressure against retaining walls. Prerequisite: course G.E. 107. 3 s.h. (E)

Professor Bird
137-138. Seminar.-Students are required to make reports and to talk on current engineering literature or on such other topics as may be assigned. 2 s.h. (E)

Staff
143-144. Projects in Civil Engineering.-This course may be assigned by the Chairman of the Department to certain Seniors who have shown an aptitude for research in one distinct field of civil engineering, in which case it may be substituted for certain general civil engineering courses. 3-6 s.h. (E) Either semester.

Staff
240. Indeterminate Structures.-Introductory course dealing with the application of theory of least work, deflection, and rotation to indeterminate stresses. Problems are solved analytically, graphically, and by deformeter. Prerequisites: course 131 and ability to read French or German. 3 s.h. (E)

Professor Bird

## ELECTRICAL ENGINEERING

## PROFESSOR SEELEY; ASSOCIATE PROFESSOR MEIER; ASSISTANT PROFESSORS MACKICHAN AND VAIL; MESSRS. EGERTON AND KRAYBILL

51-52. Survey of Electrical Engineering.-A general survey course covering the entire field of electrical engineering, intended to give the electrical engineering student a general preview of the subject as a whole. Required of Sophomores. Prerequisites: Freshman mathematics and concurrent physics. 6 s.h. (E)

Associate Professor Meier
104. Electrical Measurements.-Direct-current and low-frequency measurements ; theory, calibration, and use of laboratory standards, and of potentiometers, power and energy measuring equipment, instrument transformers. Audio-frequency measurements of impedance, current, and voltage. Two-hour class, three-hour laboratory. Prerequisites: courses 151, 161. E.E. 152, 162 concurrently. 3 s.h. (E)

Professor Seeley
151. Theory of Direct Current Circuits.-A course consisting of lectures and recitations covering the fundamental theory of direct current circuits, and electric and magnetic fields. Prerequisites: course 51-52, Physics 57-58, Mathematics 59, 60. Mathematics 131 should be taken concurrently. 4 s.h. (E) Assistant Professors MacKichan and Vail
152. Theory of Alternating Current Circuits.-A course covering the algebra of vectors and complex quantities, nonsinusoidal waves, polyphase circuits, harmonics, and unbalanced three-phase circuits. Two-hour class, twohour computation. Prerequisites: course 151, Mathematics 131. 3 s.h. (E)

Assistant Professors MacKichan and Vail
153-154. Principles of Electrical Engineering.-An elementary course consisting of lectures, recitations, and laboratory covering the principles of direct and alternating current circuits, machinery, and their applications, designed especially for students in civil and mechanical engineering. This course includes one three-hour period in the electrical machinery laboratory per week. Prerequisite: Physics 57-58. 6 s.h. (E)

Assistant Professor Vail and Mr. Kraybill
155. Direct Current Machinery.-A study of the principles which underlie the design and operation of all types of direct current machinery. Prerequisites: courses 151, 161-162. 2 s.h. (e) Associate Professor Meier
156. Electric Transportation.-Construction, operation, and uses of electric equipment in air, land, and sea transportation. Elective. Prerequisites: courses 151, 152, 161-162, or 153-154. 3 s.h. (E)

Mr. Kraybill
157. Industrial Applications of Electrical Equipment.-A course of lectures, demonstrations, and recitations dealing with the basic principles of the utilization of a wide variety of electrical equipment in industrial practice. Industrial control and motor applications with a short review of motor performance. Electronic equipment and applications. Elective. Prerequisite: course 153-15t. 3 s.h. (E)

Associate Professor Meier
158. Electric-Power Stations.-A course of lectures and recitations pertaining to the design, construction, and operation of electric power stations, both steam and hydraulic. Consideration of prime movers; generating machincry; switchboards; instruments, relays, and protective devices; operation and management; visits to neighboring plants. Prerequisites: courses 151, 152, and M.E. 103-104. 2 s.h. (E)

Assistant Professor Vail
159. Electric-Power Transmission.-A course of lectures and recitations on the factors involved in the transmission of electrical energy over long distances and the use of hyperbolic functions in the solution of transmission line problems. Two-hour class, two-hour computation. Prerequisites: courses 151, 152. 3 s.h. (E)

Professor Seeley
161-162. Electrical Circuits Laboratory.-This course provides experimental verification of the theory developed in courses 151 and 152, and should be taken concurrently. Three hours per week. 2 s.h. (E)

Assistant Professor Vail.
163-164. Electrical Machinery Laboratory.-A study of the technique of testing electrical machines and a thorough analysis of their performance. Concurrent with courses 155, 258. 2 s.h. (e) Associate Professor Meier

165-166. Electrical Engineering Seminar.-Seniors are required to present reports and dissertations on material appearing in current engineering literature. Juniors may participate, but without credit. 2 s.h. (E)

Assistant Professor Vail and Staff
169. Electron Tubes and Circuits.-Electronic emission, static and dynamic characteristics and rectification, glow discharge tubes, amplifiers and oscillators, typical circuits. Two-hour class, three-hour laboratory. Prerequisites: courses 152, 162. 2 s.h. (E)

Professor Seeley
173-174. Projects in Electrical Engineering.-Project work may be undertaken only by those who show special aptitude, or who may have had previous experience on some problem. The consent of the Chairman of the Department must be obtained before registering. Seniors only, elective credit. 3-6 s.h. (E)

Professor Seeley and Staff
202. Fundamentals of Radio.-An elementary course covering the principles underlying radio communication, including vacuum tubes, vacuum-tube circuits, oscillating circuits, antennae, radiation, transmission, and reception. Designed especially for civil and mechanical engineering students. Prerequisite : course $153-154$. 3 s.h. (E) Mr. Kraybill

257-258. Alternating Current Machinery.-A course covering the theory underlving the design, construction, and operation of synchronous generators, transformers, polyphase induction and synchronous motors, single-phase motors of all types, converters and rectifiers. Prerequisites: courses 152, 155.6 s.h. (E)

Associate Professor Meier
261. Communication Engineering, Audio Frequency.-An advanced course on the principles underlying voice-frequency communication covering nature of speech and sound, wave propagation over metallic circuits, filters; resistance. inductance, capacitance at audio frequencies; transmission characteristics of communication equipment. Two-hour class, three-hour laboratory. Prerequisites: courses 151, 152, Mathematics 131. 3 s.h. (E)

Professor Seeley and Mr. Kraybill
262. Communication Engineering, Radio Frequency.-An advanced course on the principles underlying radio communication, covering vacuum tubes, vacuum-tube circuits, oscillating and coupled circuits, antennae, radiation, transmission, reception, and ultra-high frequency techniques. Three-hour class, three-hour laboratory. Prerequisite: course 261. 4 s.h. (E)

Professor Seeley and Mr. Kraybill
263-264. Mathematical Analysis of Electrical Circuits.-An advanced course on the detailed mathematical analysis of certain circuits used in electrical engineering, with an introduction to the use of operational calculus as applied to electrical circuits. Elective. Prerequisites : courses 151, 152, and Mathematics 131. 6 s.h. (E)

Professor Seeley

## MECHANICAL ENGINEERING

## PROFESSOR WILBUR; ASSOCIATE PROFESSOR REED; ASSISTANT PROFESSORS hinton, lewis, and theiss; messrs. Kenyon and neale

51. Constructive Processes.-Recitation course covering fundamentals of metallurgy and general processes of casting, forging, and machining. Demonstrations of basic machining operations are made. Prerequisite: Chemistry 2. 3 s.h.

Assistant Professor Theiss
52. Kinetics-Mechanism.-For E. E. students. Motions of particles. Applications of Newton's Laws of Motion to motions of rigid bodies. Work, energy, impulse, and momentum. Linkages, cams, gears, trains of mechanism. Three recitations, three laboratory hours. Prerequisites: G.E. 2, G.E. 57, Mathematics 59. Mathematics 60 concurrently. 4 s.h. (E)
54. Kinetics-Mechanism.-For M. E. students. Motions of particles. Applications of Newton's Laws of Motion to motions of rigid bodies; principles of work, energy, impulse, and momentum. Linkages, belts, ropes, chains, cams, gears, trains of mechanism. Three recitation hours, six laboratory hours. Prerequisites: G.E. 2, G.E. 57, and Mathematics 59. Mathematics 60 concurrently. 5 s.h. (E)

Associate Professor Reed
55. Steam Engineering.-Elementary principles of boilers, engines, turbines, and auxiliaries; properties of steam; fuels and combustion. Prerequisite: Physics 18. 2 s.h. (e)

Professor Wilbur and Mr. Neale
101-102. Engineering Thermodynamics.-A study of thermodynamic properties and processes of gases, vapor and gas-vapor mixtures; cycles; efficiencies and performance of steam power plant equipment. Three recitations. Prerequisites: M.E. 55, Physics 58, and Mathematics 60.6 s.h. (E)

Professor Wilbur and Assistant Professor Hinton
103-104. Heat Power Engineering.-A short course in engineering thermodynamics combined with applications to power plant design. For civil and electrical engineering students. Prerequisites: Mathematics 60, M.E. 55. 6 s.h. (E)

Associate Professor Reed and Mr. Kenyon
105. Fluid Mechanics.-Fluid statics; kinematics of fluid flow; application of fluid dynamics theory to flow through orifices, weirs, and pipes; general principles of centrifugal pumps and turbines. Prerequisite: M.E. 54. 3 s.h. (E)
108. Aeronautics.-A general course applying fluid mechanics principles to airfoils, propellers, and the complete airplane. Prerequisite: M.E. 105. 3 s.h. (E)

## Assistant Professor Theiss

113-114. Junior Mechanical Engineering Laboratory.-Open only to mechanical engineering students. First semester, three laboratory hours, devoted to experiments and reports in hydraulics, flue gas analyses, calorific value of fuels. Second semester, six laboratory hours, devoted to experiments and reports related to thermodynamics, such as boiler inspection, air compression, injectors, steam and fuel calorimetry. Prerequisite: M.E. 55. M.E. 101-102 concurrently. 3 s.h. (e) Assistant Professors Hinton and

Theiss; Mr. Kenyon
115-116. Junior Mechanical Engineering Laboratory.-For C. E. and E. E. students who are taking M.E. 103-104. Experiments and reports on measuring instruments and apparatus, flow of air, steam and water, economy of boilers, steam and internal combustion engines. Three laboratory hours. 2 s.h. (E)

Assistant Professors Hinton and Lewis; Mr. Neale
150-151. Machine Design.-Application of principles of strength of materials, constructive processes, and engineering drawing to design of riveted and welded connections, pressure vessels, and machine elements, followed by design of at least one complete machine. Two recitations, three laboratory hours. Prerequisites: G.E. 107, M.E. 51, M.E. 54. 6 s.h. (E)

Associate Professor Reed and Assistant Professor Lewis
153. Heating and Air Conditioning.-Fundamentals of heating and air conditioning, determination of heat losses and gains, design of steam, hot water and warm air heating and air conditioning systems for homes, offices and industrial buildings. Prerequisites: M.E. 102 or M.E. 104. M.E. 159 concurrently. 3 s.h. (E)

Associate Professor Reed
154. Refrigeration Engineering.-Fundamentals of refrigeration theory and design, with applications in industry. Prerequisites: M.E. 102 or M.E. 104. M.E. 160 concurrently. 3 s.h. (e) Associate Professor Reed
155. Internal Combustion Engines.-Principle cycles; fuels and fuel mixtures; effect of real mixtures on theoretical cycles; combustion; carburetion and fuel injection. Thermodynamic analysis of engine performance. Modern developments in the internal combustion engine. Three recitations. Prerequisite: M.E. 101-102. 3 s.h. (E)

Assistant Professor Hinton
156. Airplane Engines.-A study of the qualities desirable in an airplane engine and design calculations. These calculations include such items as indicator card, inertia and gas loads, crankshaft vibration, and fin area required for proper cooling. Three recitations. Prerequisite: M.E. 155. 3 s.h. (E)
158. Industrial Engineering.-A study of the industrial growth and present tendencies of productive industries as concerns the engineer. Specific topics treated are: plant location, organization, production and cost controls, wage payment, etc. Seniors only. Three recitations. 3 s.h. (E)

Assistant Professor Theiss
159. Senior Mechanical Engineering Laboratory.-Tests and reports on performance and economy of internal combustion engines, steam engines and turbines; heat transfer, radiator tests, and heat balances. Required of all Seniors in mechanical engineering. Six laboratory hours. Prerequisite: M.E. 114. M.E. 153 concurrently. 2 s.h. (E)

Assistant Professors Hinton and Theiss
160. Senior Mechanical Engineering Laboratory.-Required of all Mechanical Option Seniors. Tests and reports on boiler, engine, turbine, condenser and accessories; heat transfer; refrigeration equipment. Six laboratory hours. Prerequisite: M.E. 159. M.E. 154, 162 concurrently. 2 s.h. (E)

Assistant Professors Hinton and Theiss
162. Power Plant Calculations.-Study of economic and engineering factors in developing steam power plants. Consideration of the performance of boilers, prime movers, condensers and various auxiliaries in various groupings as they affect the plant heat balance. Three recitations. Prerequisites: M.E. 101-102 or 103-104. 3 s.h. (E)

Professor Wilbur
171-172. Airplane Design.-The design of an airplane, to accomplish a specific purpose, this design to include three-view drawing, determination of air and inertia loads, and stress analysis as proof of structure. All work must be in a form acceptable to the Civil Aeronautics Board. Three laboratory periods. Prerequisites: M.E. 150, M.E. 108. M.E. 151 concurrently. 6 s.h. (E)

173-174. Aerodynamics.-A review of the physics of air leading into a study of airflow around aerodynamical shapes, this study progressing into an analysis of air forces that terminates in performance estimation. Two recitations. Prerequisites: M.E. 105, M.E. 108. 4 s.h. (E)
176. Aeronautics Laboratory.-This course includes performance tests on airplane engines, installation problems and operational characteristics of aircraft instruments, and tests of aerodynamical shapes in the wind tunnel. Two laboratory periods. M.E. 174 concurrently. 2 s.h. (E)

197-198. Projects in Mechanical Engineering.-This course may be assigned by the Chairman of the Department to certain Seniors who express a desire for such work and who have shown aptitude for research in one distinct field of mechanical engineering. Elective credit either semester. 3-6 s.h. (E) Professor Wilbur and Staff

199-200. Seminar.-Students are required to make reports and to talk on current engineering literature or on such topics as may be assigned. 2 s.h. (E)

Staff

## NAVY V-12 COURSES

Navy V-12 courses may be substituted for College of Engineering courses as indicated below:

## COLLEGE OF ENGINEERING

G.E. 1-2. Engineering Drawing.
G.E. 57. Statics.
G.E. 58. Kinetics.
G.E. 107. Strength of Materials.
G.E. 109. Strength of Materials Lab.
G.E. 128. Hydraulics.
C.E. S60. Plane Surveying.
C.E. 63-64. Route Surveying.
C.E. 112. Practical Astronomy and Navigation.
C.E. 115. Highway Engineering.
C.E. 118. Materials of Engineering.
C.E. 123-124. Sanitary Engineering.
(b) Public Water Supply.
(c) Sewerage.
C.E. 131. Steel Structures-Stresses.
C.E. 132. Steel Structures-Design.

## NAVY V-12

N D1. Engineering Drawing.
N D2. Descriptive Geometry.
N A1. Analytical Mechanics-Statics.
N A2. Analytical Mechanics-Dynamics.
N CE3. Strength of Materials.
N CE4a. Strength of Materials Lab. N CE6. Fluid Mechanics.
N CE1. Plane Surveying.
N CE10. Curves and Earthwork.
N Math. M8. Elementary Navigation and Nautical Astronomy.
N CE17. Highway Engineering.
N CE4. Strength of Materials Lab. I.
N CE14. Water Supply.
N CE13. Sanitary Engineering.
N CE7. Structures I.-Structural Analysis.
N CE9. + Structures III.-Elementary Structural Design in Steel and Wood.
C.E. 133. Reinforced Concrete.
C.E. 134. Advanced Reinforced Concrete.
C.E. 135. Soils and Foundations.
E.E. 51-52. Survey of Electrical Engineering.
E.E. 151. Theory of Direct Current Circuits.
E.E. 152. Theory of Alternating Current Circuits.
E.E. 153-154. Principles of Electrical Engineering.
E.E. 155. Direct Current Machinery.
E.E. 161-162. Electrical Circuits Lab.
E.E. 163-164. Electrical Machinery Lab.
E.E. 202. Fundamentals of Radio.
E.E. 257-258. Alternating Current Machinery.
E.E. 261. Communication Engineering, Radio Frequency.
E.E. 262. Communication Engineering, Audio Frequency.
M.E. 51. Constructive Processes.
M.E. 52. Kinetics-Mechanism.
M.E. 54. Kinetics-Mechanism.
M.E. 55. Steam Engineering.
M.E. 101-102. Engineering Thermodynamics.
M.E. 103-104. Heat Power Engineering.
M.E. 105. Fluid Mechanics.
M.E. 108. Aeronautics.
M.E. 113-114. Junior Mechanical Engineering Laboratory.
M.E. 115-116. Junior Mechanical Engineering Laboratory.
M.E. 150-151. Machine Design.
M.E. 154. Refrigeration Engineering.

N CE8. Structures II.-Theory of Reinforced Concrete.
N CE11.- Structures IV.-Concrete Structures and Foundations.

N CE15. Soil Mechanics.
N EE1. Electricity and Magnetism.
N EE3. Electric and Magnetic Circuits I.

N EE4. Electric and Magnetic Circuits II.

N EE10, 11. Electrical Engineering I-
Direct-Current Apparatus and Circuits.
Electrical Engineering II-Alternating-Current Apparatus and Circuits.
N EE12a. Direct-Current Machinery and Storage Batteries.

N EE3-4. Electric and Magnetic Circuits I and II.

N EE15. Electrical Enginereing Lab.
NEE(5a-6a). Electron Tubes and Circuits Ia and IIa.
N EE13a. Alternating-Current Machinery Ia.
N EE7. High-Frequency Circuits I.
N EE8. High-Frequency Circuits II.
N ME. Mechanical Processes.
N A1. Analytical Mechanics IStatics.
N ME1. Kinematics.
N A1. Analytical Mechanics IStatics.
N ME1. Kinematics.
N ME2. Elementary Heat Power.
N ME4. Thermodynamics I.
N ME4a. Thermodynamics Ia.
N ME3a. Heat Power Ia.
N CE6. Fluid Mechanics.
N ME14. Aerodynamics.
N CE6. Fluid Mechanics.
N ME3a. Heat Power Ia.
N ME15, 16. Mechanical Design I, II.
M.E. 155. Internal-Combustion Engines.
M.E. 158. Industrial Engineering.
M.E. 159. Senior Mechanical Engineering Laboratory.
M.E. 160. Senior Mechanical Engineering Laboratory.
M.E. 162. Power Plant Calculations.

N ME13. Refrigeration
N ME11. Heat Power II-InternalCombustion Engines.

N GE3. Industrial Organization. N ME10. Naval Machinery.

N ME11. Heat Power II-InternalCombustion Engines.

N ME12. Heat Power III-Steam Power.
N ME10. Naval Machinery.

# GENERAL REGULATIONS <br> TRINITY COLLEGE, WOMAN'S COLLEGE, AND COLLEGE OF ENGINEERING 

Under the accelerated wartime program and in keeping with the Navy schedule, Trinity College and the College of Engineering will be operated on semesters of sixteen weeks each, the first semester beginning on or about July 1, the second semester on or about November 1, and the third semester on or about March 1.

The Woman's College will operate as in the past on a two-semester basis, the fall semester opening in the middle of September.

At the close of the third semester on June 30, 1946, all of the undergraduate colleges will be operated on the two-semester plan: the autumn semester and the spring semester will begin and close in accordance with the published calendar of this bulletin.

It is important that all students be present on the first day of the session, for those who are late incur the penalties described in this catalogue under the topic "Admission to College" and below under the sub-topic "Course Cards." Students who enter after the beginning of the semester are marked absent in the work they have missed in the courses to which they are admitted, and these absences carry the same penalty as do other absences from the courses.

## MATRICULATION, REGISTRATION, AND ENROLLMENT

All students must appear before the Committee on Admission and obtain cards for admission. Cards of admission must be presented at the Treasurer's Office at the time of matriculation. All students, both old and new, are required to matriculate at the beginning of each semester and to obtain from the Treasurer a certificate of matriculation which serves also as an enrollment card. Students matriculating in either semester at a date later than that prescribed in this catalogue shall pay to the Treasurer a penalty of $\$ 5.00$ for late registration. Students whose course cards have been approved in the spring in the manner provided below are given an opportunity during the summer to matriculate by mail for the first semester. No student without a matriculation card is admitted to any class.

## COURSE CARDS

Members of the Freshman, Sophomore, and Junior classes are required to submit to the Dean, not later than the date of spring registration, cards showing their selection of courses for the following year. These cards must be approved by the Dean. After being approved, the cards must be filed for permanent record in the Dean's Office. Students in the Freshman, Sophomore, and Junior classes who do not select their courses for the following year at the time appointed must pay a fee of $\$ 5.00$ to the Treasurer of the University before their course cards may be approved in the fall. The same regulations apply for the second semester.

Students whose course cards have been approved but who, for reasons not arising within the University, desire to make a change in the card approved are required to pay to the Treasurer a fee of $\$ 1.00$ for each change made. No course may be elected later than two weeks after the opening of the semester.

If a student drops a course without permission from the Dean of the College, the grade for that course shall be recorded as "F."

If a student drops with permission a course in which he is failing at that time, the grade for that course shall be recorded as "F" unless, in the judgment of the Dean, circumstances do not justify this penalty.

## EXAMINATIONS

Midyear and final examinations are held in all subjects in January and May, respectively. These dates are different for examinations held under the accelerated wartime program. The examination record combined with the record made in class constitutes the student's final grade.

## REGULATIONS REGARDING GRADES

The following regulations have been adopted by the Faculty:
Grades shall be reported so as to indicate one of four things:
(1) Passed. A grade of "A," "B," "C," or "D" shall indicate that a student has passed a course. The work of this group of students shall be graded according to the following system: "A": exceptional; "B": superior; "C": medium; "D": inferior.
(2) Failed. A grade of " $F$ " shall indicate that the student has failed in the course and that in order to receive credit for the course he shall be obliged to take the work again in class.
(3) Incomplete. (a) A grade of "I" may be reported by the instructor if for any reason he is unable to report the final grade at the regular time. (b) All students with incomplete grades who have not satisfied the requirements of the departments concerned and who have not obtained a passing grade before the close of the semester following the date of the regular examination in which the "I" was incurred are regarded as having failed in the course concerned and must repeat the work in class in order to receive credit.
(4) Absent from Final Examination. (a) The grade " $X$ " shall indicate that the student was absent from the final examination. (b) A student absent from examination and marked " X ," if his absence has been excused by the Dean of the College, may receive an examination on the payment of a fee of $\$ 3.00$ to the Treasurer of the University. The department concerned shall arrange for the examination in cases where absences are incurred and excused, and the grade reported in these cases shall be earned by the student. (c) All students (with "X" grades), who have not satisfied the requirements of the department concerned and who have not obtained a passing grade before the close of the semester following the date of the regular examination in which the "X" was incurred, are regarded as having failed in the course concerned and must
repeat the work in class in order to receive credit. (d) If a student's absence from an examination is not excused by the Dean of the College, his grade for the course concerned shall be recorded as " $F$."

## EXPLANATION OF QUALITY-POINT SYSTEM

The requirements for the degree are reckoned not only in semester hours but also in quality points. Quality points are the points earned by a student, according to his grades, for each semester hour of credit. The the grade "A" gives three quality points for each semester hour of credit: the grade " B ," two quality points; the grade " C ," one quality point. The grade " $D$ " carries no credit in quality points. For the grade " $F$ " one quality point is deducted for each semester hour of failure. Credit for 120 quality points, exclusive of those earned in physical education, is required for the degree of Bachelor of Arts or Bachelor of Science in all groups.

## NUMBERS OF HOURS OF CLASSWORK

Without special permission of the Dean, no undergraduate student is allowed to take less than fourteen semester hours of classwork a week.

The normal maximum credit work of an undergraduate student in the colleges of arts and sciences is fifteen, or seventeen semester hours (if one course is an eight semester hour science), and the permissible maximum is nineteen semester hours. This maximum, however, cannot be taken by a student who has not earned at least a " C " average in his work of the preceding semester.

## CLASS STANDING

For a student to rank as a Sophomore, he must have to his credit twenty-four semester hours with an average grade of "C"; as a Junior, fifty-four semester hours with an average grade of " C "; as a Senior, ninety semester hours with an average grade of "C."

## SENIOR WORK

A student of the Senior Class irrespective of his average grade in preceding years, must, in order to be eligible for graduation, complete the work of his Senior year with an average grade of " C " or better.

## EXCLUSION FOR FAILURE

A student of the Freshman Class entering college for the first time is not permitted to remain in the University in the second semester unless he passes as much as six semester hours of the work of the first semester; any other student is not permitted to remain in the University in the second semester unless he passes as much as nine semester hours of work in the first semester.

A student of the Freshman Class is not permitted to re-enter in September, nor to enter the Summer Session, if he did not pass at least six semester hours of work in the second semester of the previous year and a total of eighteen semester hours of work for the entire year; any other
student is not permitted to re-enter in September, nor to enter the Summer Session, if he did not pass at least nine semester hours of work in the second semester of the previous year and a total of eighteen semester hours of work for the entire year.

## STUDENTS TRANSFERRING FROM OTHER INSTITUTIONS

Students whose advanced credits from another institution are accepted by the University will be given an average grade of "C" on the semester hours with which they are credited, provided their grades warrant it.

## DEFICIENCIES IN COMPOSITION

The following regulations have been adopted by the Faculty:

1. Any Freshman who is found by the English Department to be unable to handle satisfactorily the work of composition in English 1-2 is required to take special work until he is able to do satisfactorily the regular work of English 1-2.
2. No student who has failed in English 1-2 or 53 is permitted to become a special student without continuing his work in composition until he has made up his deficiency in this work.
3. Whenever the work of a student in any subject is satisfactory to an instructor except for gross errors in English, the instructor concerned may hand in a provisional grade only. This grade may not be recorded in the college files until the student shall have improved his work in composition to the satisfaction of the English Department. A list of such provisional grades, along with evidence of deficiencies, shall be furnished the English Department each term by the officers in charge of the grades, and a report shall be made by this department when the deficiencies have been removed.
4. All instructors are requested to advise their students each semester concerning these regulations.

## CANDIDATES FOR ACADEMIC DEGREES

1. A tentative list of all candidates for the Bachelor's degree shall be prepared under the supervision of the Dean of the College as early in the college year as possible, shall be read by him to the Faculty at its first regular meeting in October, shall be furnished in copy to each defartment of instruction for information and reference, and also shall be posted in copy on the official bulletin board of the University for the information of the students concerned. Dates are subject to change in Trinity College and the College of Engineering under the wartime schedule.
2. Copies of the second such tentative list likewise shall be prepared, read, and distributed by April 15.
3. A final list of all candidates for the degree shall be read by the

Dean to the Faculty at its first regular meeting in May and shall be adopted by the Faculty as the final list. After the adoption of this list no name may be added to it.

A student who completes in a summer session the work required by the University for the Bachelor's degree will be granted the degree at the end of that session.

## CLASS ATTENDANCE <br> trinity college and the college of engineering

Absence of an undergraduate civilian student of Trinity College or the College of Engineering from his classwork is excused only if the absence is unavoidable, due to illness, or approved beforehand by the Dean of the College. Punctual attendance also is required; both tardies and absences are reported at the end of each week to the Dean's Office by every instructor. They must be explained promptly by the student to the satisfaction of the Dean; otherwise, they are regarded as unexcused. For the first unexcused absence from a course, the penalty is the loss of one quality point in that course; for the second from that course, the loss of an additional quality point in the course and probation in the course; for the third from that course, removal from the course with a loss of quality points equivalent to the semester hours credit of the course. Three tinexcused tardies in a course carry the same penalty as one unexcused absence from that course; four in a course, that of two unexcused absences from that course; five in a course, that of three unexcused absences from the course. A student shall be recorded as tardy if he is not present at roll call. A student who is dropped from two or more courses for excessive absences or tardies is dismissed from college for the rest of the semester.

Instructors' weekly attendance reports are filed in the Dean's Office and become a part of the permanent record of all students. No instructor las the authority to excuse either tardies or absences of students.

## THE WOMAN'S COLLEGE

Regular and punctual attendance in classwork is expected of all students.

Weekly reports of all absences from class are made by each instructor and are filed in the Dean's Office. A permanent record of the attendance of each student becomes a part of her general college record. The instructor has no authority to excuse a student from class attendance, and it is his duty to report all absences, for whatever cause, to the Dean's Office at the end of each week.

In order to provide for an occasional short illness or for a sudden emergency, one absence per semester-hour credit may be incurred in each course during each semester without penalty, but no consecutive absences, except for illness or unless excused beforehand by the Dean, may be taken in any course, unless the class is scheduled on consecutive days. As stated above, the purpose of this rule is to provide for those absences
made necessary by illness and various emergencies, and students should reserve them for such occasions.

For any consecutive absences from a course, except for illness in the Infirmary, excuse from the Dean's Office is necessary. Excuse for absence due to prolonged illness or to authorized representation of the University in a student activity must also be obtained from the Dean's Office.

After the total number of absences allowed in any course has been incurred by a student for any reason whatsoever, no further absences, except those excused by the Dean, may be incurred.

No absences on days immediately preceding or following a holiday will be allowed.

## PENALTIES FOR UNEXCUSED AND EXCESS ABSENCES

For each excess unexcused absence in any course, for each unexcused consecutive absence in any course, and for each unexcused absence before or after a holiday, the student will lose one-half semester hour from the total number of semester hours credit.

In addition, for excess absences a student may, at the discretion of the Dean, be put on probation or dropped from college.

The above regulations do not apply to women enrolled in the Navy Program, as they are allowed no absences without an excuse from the Dean.

## ASSEMBLY AND CLASS MEETINGS

## TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

There shall be held on the first Thursday of each month of the college year in Page Auditorium, from 12:30 p.m. to $12: 50$ P.m., an assembly of all Seniors, Juniors, and Sophomores of Trinity College, and at this period of the day separate meetings of these three groups on the second, third, and fourth Thursdays of each month. There shall be a class meeting of the Freshman Class on each Saturday of every month at the time named above. The Engineering assemblies are held on the first Wednesday of each month from 12:30 P.m. to 12:50 P.m. in 104 Asbury.

Attendance upon all of these meetings is compulsory for all students involved. Any student incurring in a semester a total of more than four absences from them automatically excludes himself from college.

## WOMAN'S COLLEGE

A weekly assembly is held for all students in the Woman's College, and an additional assembly for all Freshmen and transfer Sophomores. A meeting of the Freshman Class is held each week, and other classes meet at appointed times.

Attendance upon all of these meetings is compulsory for all students involved.

## SCHOLASTIC REGULATIONS FOR ATHLETIC AND OTHER ORGANIZATIONS

The following regulations have been adopted by the Faculty:

1. Any student who receives less than a passing grade on more than six hours of his required work of the preceding term shall be ineligible to represent the University in any athletic contest, concert, or other public event.
2. Members of athletic teams or other student groups engaging in public representation of the University are expected to be carrying satisfactorily their current work. A student may be barred from participation in such representation if, in the opinion of the Dean, he is not doing satisfactorily his current work.

Duke University is a member of the Southern (Athletic) Conference and observes the following scholastic requirement of that Conference:
"The scholastic requirement for eligibility to participate in varsity intercollegiate sports shall be the passing by the applicant of a minimum of twenty-four semester hours or thirty-six quarterhours of the work of his immediately preceding year in college; with the proviso that graduate students and students in the schools of law and medicine become scholastically eligible on the certificate of the deans of their schools."

## THE ATHLETIC COUNCIL

The Board of Trustees, at its regular annual meeting in June, 1907, created an Athletic Council to be composed of eleven members appointed annually: three from the Faculty, to be appointed by the President of the University; four from the alumni, elected by the Alumni Association; and four from the undergraduates, one from each of the four classes, elected by the members of each class.

The three members of the Athletic Committee of the Faculty are the Faculty representatives in the Athletic Council. This committee alone has the responsibility of enforcing the scholastic and athletic requirements of the University for student participation in intercollegiate sports. The athletic eligibility rules are those of the Southern Conference; the scholarship requirements are printed elsewhere in this catalogue.

The Executive Committee of the Athletic Council is composed of the Chairman of the Faculty Committee on Athletics, and one other Faculty member and one alumni member of the Council. The Athletic Council on recommendations of its Executive Committee arranges athletic schedules, awards insignia of merit earned by members of athletic teams, and strives to promote among students of the University a proper and helpful athletic spirit; to encourage good fellowship in such sports both within the student body and toward student bodies of other educational institutions; through athletic sports to help cultivate a high sense of honor, earnest, unselfish effort, and manly conduct. The Executive Committee of the Council recommends to the President of the University persons to serve
as Graduate Manager of Athletics and as coaches in the various sports. The election of such persons, however, rests soiely with the Trustees of the University or the Executive Committee of the University, on recommendation of the President of the University.

All funds arising from athletics are handled entirely by the Treasurer of the University. An audit of the receipts and disbursements of these funds is made annually by the official auditors of the University.

## CONDUCT OF STUDENTS

The University expects of its students loyal and hearty co-operation in developing and maintaining high standards of conduct as well as of scholarship. The University therefore reserves the right, and matriculation by the student is a concession of this right, to ask the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge be made against the student.

## ADMINISTRATION OF DISCIPLINE

General oversight of the conduct of students and the administering of discipline are vested in the Dean of the University. The duty of immediate supervision, guidance, and control of the students in each college is entrusted to the Dean of that College. However, through the expressed willingness of the students of the University to assume the responsibility of maintaining high standards of morals and honor at all times the student body has properly become in a great degree self-governing in this respect. Two councils, one of men and the other of women, each composed of carefully chosen and duly elected representatives of the student body, exercise the authority granted the students to investigate all cases of misconduct, as well as all other cases of violation of proper student standards and traditions and to make recommendations of penalties based on their findings. Occasions seldom occur where such recommendations are not accepted and enforced.

The student councils have been of great help to the administrative authorities of the University. They not merely exercise police authority tor restraining and punishing evildoers but also exert a guiding and stimulating influence for the promotion of high ideals of conduct and student relationships.

## REGULATIONS REGARDING PUBLIC Lectures and OTHER PUBLIC OCCASIONS

All public lectures or addresses and other public events that are given under the auspices of the University or of any organization in any way connected with the University are under the supervision of the Faculty Council on Public Lectures. All dates and programs must be approved by this council except in instances where such occasions have been placed under the supervision of the Director of Public Relations.
(1) The Council on Public Lectures shall provide each year an official calendar.
(2) All public occasions held on either the East or West University Campus are listed for the Weekly Calendar of Duke University in the office of the Department of Public Relations and Alumni Affairs in the West Campus Union. This calendar appears each Saturday, and such notices must be received by $5: 00$ P.m. on the Thursday preceding.

Social or other events held in the West Campus Union must be listed in the office of the Director of Public Relations and Alumni Affairs, and permission must be secured for such social use of the public rooms in the building.

## REPORTS

Reports of the class attendance records and of the proficiency of each student in studies are sent to his parents or guardians after the examinations at the end of each semester. For Freshmen, mid-semester reports are made.

## HEALTH AND PHYSICAL EDUCATION

The program of Health and Physical Education in Duke University has four distinct phases, as follows:

1. Student Health.
2. Physical Instruction.
3. Intramural Sports.
4. Intercollegiate Athletics.

## MEDICAL CARE

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated students of the University, during both the college year and the summer quarter, at no additional cost to them beyond the medical fee of $\$ 5.00$ payable each semester or the medical fee charged each student of the summer quarter. This service is under the direction of the University Physician with the co-operation of the Staffs of the Infirmaries (one on each campus) and the University Hospital. It includes hospitalization (limited to thirty days), medical and surgical care, drugs, dressings, X-ray work, and ward, but not special nursing. A charge for board is made at the same rate as in the University dining halls, and student meal tickets for these halls are accepted in payment of this board. Refraction of eyes, treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernias, elective surgery, chronic skin conditions, endocrine disturbances, etc., or accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and crthopaedic appliances, as well as of special nursing, must be borne by the student.

No illness is treated in dormitory or other rooms occupied by students. Students needing treatment for minor medical or surgical conditions have the attention of the Director at his two daily visits to the Infirmaries, which have day and night nurses on duty. Students developing serious
conditions are promptly transferred from the Infirmaries to the University Hospital, where they come under the care of the Staff of the Hospital.

A questionnaire is sent out from the office of the Director of Student Health in the spring to all prospectvie students, advising certain medical and surgical care by their home physician or surgeon, such as the giving of typhoid or smallpox vaccine, removal of diseased tonsils, correction of errors of refraction, repair of a hernia, or removal of a chronic appendix. Important time is frequently lost in correcting these conditions after entrance into college, and the cost for this work must be borne by the student.

When the student comes to the University, he is given a careful physical examination. Any physical defects are recorded along with the record of the questionnaire from the family physician. All students are requested to be successfully vaccinated against smallpox before admission to the University. It is urgently advised that they take typhoid vaccine if they have not done so within three years.

## PHYSICAL EDUCATION AND INTERCOLLEGIATE SPORTS TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

The University requires all students to engage in some type of physical activity for two years or four full semesters. This work consists of participation in natural, practical, physical activity for at least three one-hour periods each week. A credit of six hours, with an average grade of "C," is required in physical education for graduation. The purpose of this work is to improve body control and strength through big muscle activities, to stimulate the development of mental and physical alertness, to establish habits of regular exercise, and to give training and experience in various kinds of recreational sports that will be indulged in after the student graduates from the University.

Intramural sports are fostered and promoted in all lines of athletic activity. Meets, tournaments, and leagues are seasonally organized in the different sports. All students in the University are eligible to enjoy the intramural privileges, provided they comply with the intramural rulings. Participation in these activities is entirely voluntary, but is very popular because it provides an opportunity for every man to enter into competition and recreation in those sports which he enjoys most.

The intercollegiate athletic program is controlled entirely by the University and consists of the organization and training of representative Freshman and varsity teams in the following sports: football, basketball, baseball, track, cross country, swimming, lacrosse, wrestling, tennis, and golf.

## WOMAN'S COLLEGE

The Physical Education Department aims to give all students an appreciation of the value of activity for general physical well-being, skill in one or more activities which can be enjoyed as recreation after college, it well-developed and well-coordinated body and a knowledge of good posture and efficient handling of the body in everyday activities.

To this end, students are allowed to choose from a large number of activities including outdoor individual, dual, and team sports; several types of dancing, swimming, and gymnastics. All Freshmen are expected to take body mechanics in the winter, and each student must elect a rhythm, one team sport, and two individual or dual sports some time during the three years of required physical education.

In addition to the required work in physical education the Dance Club, the Swimming Club, and the Woman's Athletic Association give opportunities for all students to take part in the types of intramural activities most interesting to them. The swimming pool, tennis courts, and other athletic equipment are available to all students for use at specified times.

## PHYSICAL EDUCATION AND RECREATION FEES

In order to meet certain hygienic aspects of physical education and intramural athletics the University has made available for all students, in addition to facilities for physical activity and recreation, the following equipment and services :

1. (a) Men. A regulation uniform: shirt, trunks, supporter, socks, sweat clothes, and towel.
(b) Women. Gym suit, dance costume, bathing suit, warm-up suit.
2. Provision for locker and handling of uniform.
3. The laundering of uniform and towel as needed.

The privileges and services listed above are available to all students upon payment of the Recreation Facilities and Equipment Fee, so long as they comply with the rules and regulations established for the care and handling of same. Students enrolled in required physical education courses have been assessed an additional fee (see Laboratory and Materials Fees). This fee is necessary in order to make more equitable the maintenance of locker system and usage of uniform.

## PUBLICATIONS COUNCIL

The student publications of the University are under the control of a council that was established in 1924 and reorganized by the Executive Committee of the University in 1935, and is constituted as follows: three (3) members from the University Staff appointed by the President of the University; two (2) members from the alumni appointed by the President of the University; $\operatorname{six}$ (6) men from the Junior and Senior classes, elected by the students in Trinity College and the College of Engineering; four (4) women from the Junior and Senior classes, elected by the students in the Woman's College; and three (3) editors and three (3) managers of student publications, ex officio members without any voting power. With the advice of the Council, the President of the University appoints each year for each publication an advisory committee of three (3) members from the Staff of the University.

No student publication can be started at the University without the approval of the Council.

## RELIGIOUS EXERCISES

Chapel exercises are conducted throughout the academic year at 7:00 p.m. Thursday on the campus for men. Preaching services are held on Sunday at 11:00 A.m. in the University Chapel. Organ recitalss and special programs are given from time to time on Sunday afternoons. In the summer, carillon and organ recitals are given twice a week.

## APPOINTMENTS OFFICE

The University maintains an Appointments Office, and its services are extended to all students and alumni without charge. This office has two divisions, commercial (general placement) and educational (teacher placement). Students and alumni are encouraged to register with the office in order to make available in one center information respecting their various qualifications for the employment they seek.

## FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences and in history. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

## GENERAL FEES

Matriculation, per semester..................................................... . . $\$ 25.00$
Tuition, per semester...................................... . . . . . . . . . . . . . . . . . . . . 100.00
Room-rent-See the detailed statement that follows.
Athletic Fee, admitting students to all athletic contests held on the
University grounds, per semester............................................ 5.00
*Recreation Facilities and Equipment Fee, per semester................. 2.00
Damage Fee, payable annually at the time of first registration.......... 1.00
Medical Fee, per semester.......................................................... . . . 5.00
Library Fee, per semester............................................................. 5.00
Commencement Fee, payable annually at the beginning of the second
semester ................................................................. 3.00
Publication Fee:
First semester...................................................................... . 3.00
Second semester................................................................. 2.50


## LABORATORY AND MATERIALS FEES

Botany 1, 2, 52, 55, 101, 104, 202, 204, 221, 255, and 256................. $\$ 2.50$
Botany 51, 103, 151, 156, 203, 216 and 252................................... 5.00

$\dagger$ Chemistry 1, 2, 61, 70, 131, 153, 154, 215, 216, 234, 261, and 262........ 7.00

Education 1,58, 68, and 101................................................... . . 1.00
Education 112, 115, 116, 122, and 131 :............................................. 7.50
Education 208 (for testing materials in lieu of text).................... 2.50
Engineering
Civil S60-See Summer Session Bulletin.
Civil 61, 63, 64, 112, 118, 123, 124, 135, 143, 144, and 240.......... 2.00
Electrical 153, 154, 161, 162, 163, 164, 261, 262........................ 2.00
General 109................................................................... . . 2.00
Mechanical 113, 114, 115, 116, 159, 160, 176............................ 2.50
Forest Botany 224 and 253................................................... 2.50
Forestry 224, 253, 254, 259, 260, 264, 357a, and 358a...................... 2.50
Forestry 261, 351, 352, 354, 357b, 358b............................... $\$ 2.50$ to $\$ 5.00$
Geology 51, 52, 53, 64, 101, 151, and 152.................................... 2.50
Geology 102................................................................... . . . . . . 5.00
Field trip in Geology 51-52 and 101-102 at cost.

[^43]History 91 and 92 ..... 3.00No texts are required in these courses, but a fee of $\$ 3.00$ is charged,and books placed in the Library for the use of those taking thecourses. This fee is payable at the beginning of the semester and iscollected through the office of the Treasurer of the University.*Physical Education, per semester, for men.3.00
*Physical Education, per semester, for women ..... 2.00
Physics 1 and 2 ..... 5.00
Physics 51, 52, 101, 102, 203, 204, 205, 207, 213, 214, 217, 218, 219, 225, 226 ..... 6.00
Physics 106 ..... 5.00
Zoology 1, 2, 92, 161, 204, 219, 220, 222, 274, 276, 306, 324, 343, 353, and 354 ..... 3.00
Zoology 53, 151, 156, 224, 229, 303, and 321 ..... 5.00

## TEACHERS TAKING COLLEGE COURSES

Teachers in near-by schools, taking one or two courses, are required to pay a registration fee of $\$ 5.00$ each semester and a tuition fee of $\$ 3.00$ per semester hour of credit in addition to any regular laboratory fee or other fees collected from those students taking the courses.

## ESTIMATED EXPENSES FOR AN ACADEMIC YEAR

The necessary expenses of a student are moderate; the University Gormitories provide thoroughly comfortable and wholesome living conditions at a minimum of cost, while all charges made by the University have been kept low. Incidental expenses depend naturally upon the tastes and habits of the individual, but the actual necessary college expenses for one year, including board, room-rent, and such University fees as tuition, matriculation, commencement, library, damage, and medical, can be met within $\$ 725.00$ for a two-semester year. Books, laundry, and laboratory fees are not included in this figure.

## LIVING ACCOMMODATIONS FOR MEN

Single room, per semester-Craven, Crowell, and Kilgo Quadrangles,
West Campus.................................................................. . $\$ 75.00$
Double room, per student, per semester-Craven, Crowell, and Kilgo
Quadrangles, West Campus.
62.50

There are three groups of resident houses designated as Craven, Crowell, and Kilgo Quadrangles on the West Campus. The rooms are single, double, or arranged in suites of two rooms for four students. There are thirty-one houses within the three groups designated by the letters of the alphabet.

There is one building definitely assigned as a Freshman dormitory.
Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business Division, Duke Station, Durham, North Carolina. A reservation fee of $\$ 25.00$ at the office of the Director in the Business Division is required. This reservation fee is deducted from the room charges at the time of registration for the fall semester.

[^44]A resident student in order to retain his room for the succeeding semester is required to make application accompanied by a reservation fee of $\$ 25.00$ at the office of the Director in the Business Division. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester, or in the case of a medical student, one quarter, unless by special arrangement with the Director in the Business Division. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of $\$ 1.00$ each day.

The exchange of rooms may be arranged for at the Housing Bureau within fifteen (15) days after the official opening of the semester or quarter of the school term. A charge of two dollars ( $\$ 2.00$ ) will be made for the exchange of rooms after the periods allowed for such exchange. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of Duke University do not assume the responsibility of selecting and assigning roommates, though they will gladly render any assistance possible.

## DORMITORY REGULATIONS

Duke University is particularly eager that its students shall have the best dormitory life to be found in any institution, and to encourage this has provided buildings and equipment which are not surpassed. The institution asks and believes that in return each student will respond to this effort by arranging his personal belongings in an orderly manner, and by caring for the buildings and furniture as he would do in the home of a friend. The following regulations are offered as a guide and a reminder that care is desired.

1. The student will be held responsible for any damage to the room or furnishings during the rental period, and will pay for all damages caused by his neglect, misuse or abuse of any part of the University property. Inspections will be made throughout the college year to observe the condition of the rooms and to advise students concerning the care of rooms, if necessary.
2. Maids will prepare the rooms daily except Sunday, the service beginning promptly at 8:00 A.M. and ceasing at 1:00 P.M., thereby giving the student complete use of his room during the afternoon.
3. University furniture or furnishings must not be removed from the room in which they have been placed by the University.
4. Electric wiring, door locks, window screens, steam or water lines should not be changed or added, since the University supervises and makes such changes as are necessary and advisable.
5. Pictures, pennants, clippings should be hung from the picture moulding and not tacked or pasted on walls or woodwork.
6. Each student is expected to supply necessary sheets, blankets, pillows, rugs, and curtains. Furniture, beds and mattresses ( $39^{\prime \prime} \times 74^{\prime \prime}$ ), tables, chairs, dressers, mirrors, and window shades are furnished by the University.
7. All trunks and heavy luggage will be stored in the trunk rooms. Janitors will remove the trunks from the hallways to the storage rooms when they are unpacked.
8. The exchange of rooms or keys should be arranged for at the office. Any exchanges made otherwise will subject the participant to charges for both rooms.
9. The use or possession of intoxicating liquors, wines or beer, and gambling in any manner in any of the buildings or on the grounds of Duke University are forbidden.
10. Animals shall not be kept in the dormitories.
11. Women are permitted in the dormitories only when accompanied by the University Hostess.
12. The use of dormitory rooms as a sales office or storeroom, or the solicitation for sales or gifts within the buildings or on the grounds is prohibited except by appointees of the University.

## LIVING ACCOMMODATIONS FOR WOMEN

The Woman's College campus, known as the East Campus, is situated about a mile and a quarter from the West Campus, with a private road connecting the two.

Houses-The eight residence houses on the East Campus are Alspaugh, Aycock, Bassett, Joseph G. Brown, Giles, Jarvis, Pegram, and Southgate. A plan of the houses will be sent upon request to the Director in the Business Division, College Station, Durham, North Carolina. Each house has a resident head of house and paging system for announcing visitors.

Rooms-All questions concerning rooms should be addressed to the Director in the Business Division. The students' rooms are single, double, or arranged in suites of two rooms for two students.

Room Furnishings-Rooms are supplied with all necessary furniture. Curtains, towels, sheets, pillow-slips, blankets, and heavy bed covering, etc., are furnished by the students. Sash curtains of a standard type are required and can be bought at the College Store. Draperies, small scatter rugs, and study lamps can be brought from home or bought at reasonable prices from the College Store or in the city. Large rugs and heavy overstuffed furniture may not be brought into the dormitories.

## Room-rent-

> Single room, per student, per semester, Giles, Alspaugh, Pegram, Bassett, Brown, Jarvis, Aycock, and Southgate Houses........ $\$ 87.50$
> Double room, per student, per semester, Giles, Alspaugh, Pegram, Bassett, Brown, Jarvis, Aycock, and Southgate Houses......... 62.50

Room Reservation-A room reservation fee of $\$ 25.00$ is required before any room reservation can be made for new or returning students. This fee is deducted from the room charges at the time of registration for the fall semester. Applicants for admission are requested not to send the room reservation fee until notified of acceptance. Those who make application and are accepted will not be entitled to have the reservation fee refunded unless the request is made on or before July 15. Those who are accepted after July 15 have ten days in which to pay their room reservation fee. This fee is not refundable.

No room assignments will be made for new students until they have been officially accepted by the Council on Admissions. The room reservation fee of $\$ 25.00$ is payable immediately upon notification of acceptance by the Council on Admissions. If room reservation fee has not been received within ten days after notification of acceptance by the Council on Admissions, the admission will be canceled.

Details relative to the signing of rooms by resident students will be posted on dormitory bulletin boards about April 15. Resident students have the right
to retain their rooms for the ensuing year or to sign for new ones in the order of their class beginning with the Seniors. The new students are then assigned the remaining rooms, and in so far as possible, the type of room which they prefer. The University is responsible for the fall semester only for securing roommates for new students desiring double rooms. After a student has been a resident for one semester, the responsibility for securing and keeping a roommate is transferred to the student. If a student occupying a double room does not have a roommate by the date posted, approximately two weeks after the beginning of the semester, she will be required to pay double rent. The University is glad to co-operate in assisting the student to find a roommate.

When a room is once engaged by a student no change will be permitted except with the consent of the Director in the Business Division. Leaving one room and occupying another without permission is strictly against the rule and will render the offender liable to a charge for both rooms for the entire semester. No occupant is permitted to rent or sublet a room to another occupant. Rooms are rented for no shorter period than one semester. When a student leaves school before the end of the semester, the charge is $\$ 1.00$ a day unless the total charge on this basis is in excess of the room rent for the semester. All undergraduates who are not residents of Durham are required to live in the dormitories unless they are living with their parents or nearrelatives. An undergraduate woman who is over twenty-one years of age and who wishes to live in the city may make special arrangements with the Dean. Provision is made for graduate students to live on the campus.

No visitors are permitted in any section of the dormitories which are occupied by women except by permission of the office of the Head of the House. Merchandising, solicitation, or advertising of any type is strictly forbidden within the dormitories.

## BOARDING ACCOMMODATIONS

Trinity College, West Campus.-The University operates dining halls and a Coffee Shop in the Union on the West Campus with accommodations sufficient to provide in a superior way for all resident men students. Food costs range from $\$ 1.00$ to $\$ 1.50$ per day.

The Union is the logical center of student activities for men, and it will be found desirable for male students to board in its supervised halls. In the Union are located the University Post Office, the University Store, the University Barber Shop, and all publications staff offices.

In addition to the Union dining halls, the Coffee Shop is operated for the convenience of students and visitors.

Woman's College, East Campus.-The dining halls of the Woman's College are situated in the Union and in Southgate. No resident woman is permitted to board elsewhere than at these halls. The charge for board is $\$ 150.00$ per semester, payable at the time of registration.

Because of the large number of those served in the dining halls, it is not possible to arrange special diets for individual students. Special diet for the sick is served in the Infirmary.

The Union includes a Faculty dining room, a lounge, and other rooms for various student activities.

## LAWS REGARDING PAYMENTS

The Executive Committee of Duke University has enacted the following regulations which govern the payment of all fees due the University:

1. The President and the Treasurer of the University have no authority to suspend or in any way alter these regulations.
2. Matriculation and tuition fees are never refunded.
3. Any student who has failed to pay his bills on the dates advertised in the catalogue is denied the right to attend classes until his account is settled in full.
4. No student is considered by the Faculty as an applicant for graduation until he has settled with the Treasurer for all his indebtedness to the University.
5. No student who has not settled all his bills with the Treasurer of the University is allowed to stand the midyear or final examinations of the acadennic year.

When a student wishes his bills sent to his parents or guardian, the student or his parent or guardian must so notify the Treasurer of the University in writing in due time, but this in no way releases the student from liability to established penalties, if his bills are not paid on the dates advertised.

## TRANSCRIPTS

Students desiring to transfer from Duke University to another instituition are entitled to one transcript of their record. A charge of $\$ 1.00$ is made for each additional copy.

## SCHOLARSHIPS, LOANS, AND EMPLOYMENT AID

Duke University annually awards available scholarships, administers loan funds, and supervises student employment through a committee of the Faculty for deserving undergraduates of Trinity College, the Woman's College, and the College of Engineering.

## SCHOLARSHIPS

Scholarships intended to aid needy and deserving students have been established from time to time by persons deeply interested both in Duke University and in the members of its student body. Such scholarships are supported by the income from invested funds. All scholarship endowments are held in trust and are kept separate and distinct from other holdings of the University. All income is faithfully applied in accordance with the terms of the gift or bequest.

In addition, a limited number of scholarships, notably the honorary awards in recognition of scholastic merit and strength of character, are financed through current funds of the University.

Scholarships are awarded annually by a committee of the Faculty appointed by the President of the University. In some cases donors have specified certain limitations and conditions. These are faithfully followed, but in all cases final award is made by the Faculty committee.

As a general rule, scholarships cover tuition charges only, though in some instances provision has been made for larger amounts. Any prospective student may apply for a scholarship. No application, however, may be made formally by a prospective student until application for admission has been made, all necessary credentials have been presented, and notification of acceptance has been given. The number of scholarships available is small in comparison with the number of undergraduate students enrolled in the University, and as a result the committee in making the awards attempts in so far as possible to limit scholarship aid to cases where the need is imperative. Before applying for such aid, a student should first have exhausted all means of aid from parents, kinsfolk, interested friends, and commercial or civic agencies in his home locality.

All applications for scholarship aid should be made to the Scholarship Committee, Secretary's Office, Duke University.

## LOAN FUNDS

A number of loan funds have been established for the benefit of students of Duke University. The most important and largest of these is the Angier B. Duke Memorial Student Loan Fund, which is administered through an advisory committee of officers of the University. The amount available to be loaned annually depends upon the income from investments and on the amount repaid on loans previously made to students.

The same committee of officers administers the other endowed loan funds of the University.

Although a considerable sum accrues annually for loans to students, it is not sufficient to provide for all calls for assistance. The committee in approving loans selects those students who, from the standpoint of character, scholastic attainment, personality, and degree of financial need, are most deserving of consideration.

The following regulations govern the making of all student loans:

1. No loans shall be made to a student who violates any of the regulations of the University or whose classwork is not satisfactory to the Faculty.
2. As a general policy a student is not potentially eligible for loan assistance until he has been in residence at least one semester and until those responsible for the administration of loan funds have had an opportunity to acquaint themselves with the worthiness and the need involved in any particular case.
3. Loans will be made only to students who are taking approved courses of study that lead to a degree, and all loans must be arranged for not later than one week after the beginning of a semester.
4. Every applicant for a loan must present with the application such security as the President of the University may approve, and no money shall be advanced before a note with approved security is in the hands of the Treasurer of the University.
5. No loan will be made to defray any other expenses than those incurred during the academic year for tuition, for matriculation, or for room-rent.
6. Interest at a rate of six per cent annually shall be charged for all loans of money, and the interest must be paid annually.
7. Applications for loans should be made to the Loan Committee, Secretary's Office, Duke University Station. A formal application for loan assistance may be made only on blanks furnished in the Secretary's Office at the time of registration. The granting or withholding of a loan is a matter entirely within the discretion of the Loan Committee. A student is expected to use all other possible means of securing financial assistance before applying for aid from the Loan Fund.

## EMPLOYMENT

A number of students each year secure part-time employment on the University campus and in the city. Those in need of such employment may apply to the Secretary of the Committee on Student Aid, Secretary's Office, Duke University. No definite number of such places can be promised. Available places will be assigned in accordance with the merit and the need of the applicants.

## HONORS AND PRIZES

To be eligible for Honors a student must earn during the year a credit of not less than thirty semester hours. Students in the Freshman, Sophomore, and Junior classes who earn an average of at least two and one-half quality points per semester hour are given Honors. All semester hours on which a student receives a grade are counted in the determination of Honors.

The degree of Bachelor of Arts or of Bachelor of Science with distinction is conferred upon the following rules:

Students who have completed a minimum of ninety semester hours in Duke University are eligible for general Honors at graduation. Those who earn an average of at least two and one-half quality points per semester hour are recommended for a degree magna cum laude. Those who earn an average of at least two and three-fourths quality points per semester hour are recommended for a degree summa cum laude. All semester hours taken in Duke University on which a student receives a grade are counted in the determination of Honors.

## MEDALS AND PRIZES

The Wiley Gray Medal was established by the late Robert T. Gray, Esq., of Raleigh, North Carolina, to be awarded annually in memory of his brother. It is given for the graduating oration that shall be, in the opinion of a committee, the best, with respect to both declamation and composition.

The Debate Council authorizes the awarding of medals to members of the graduating class who have represented the University in at least two intercollegiate debates. The medals are given by the local chapter of the Tau Kappa Alpha Fraternity.

The Robert E. Lee Prize is the gift of the Reverend A. W. Plyler, of the Class of 1892 , and Mrs. Plyler. The sum of $\$ 50$ is awarded annually at Commencement, preferably to that member of the Senior Class who in character and conduct, in scholarship and athletic achievement, in manly virtues and capacity for leadership, has most nearly realized the standard of the ideal student. The Dean of the College, the Graduate Manager of Athletics, and the President of the Student Council constitute a committee to draft and adopt regulations governing the award.

Alpha Kappa Psi Mcdallion. This prize is offered each year to the member of the graduating class who makes the highest record in economics and business administration during his career at the University.

The Willis Smith Prize. Mr. Willis Smith, a member of the Raleigh Bar and Chairman of the Law School Committee of the Board of Trustees of Duke University, awards each year to that member of the graduating class of the Law School who has maintained the highest scholastic average during the entire three years of Law School work, a prize consisting of a set of books selected personally by Mr. Smith each year for that purpose.

Julia Dale Prize in Mathematics. This is a prize of books given annually to the undergraduate who shows the greatest proficiency in the study of the calculus.

The Milmow Prize, consisting of one year's subscription to the Electrical World, is awarded each year to that student from North or South Carolina graduating in the Department of Electrical Engineering, who, in the opinion of the Faculty of that department and as shown by his grades, has made the most progress in electrical engineering during his last year in college.

Institute of the Aeronautical Sciences Awards. Two annual awards, each consisting of a two-year paid-up membership in the Intsitute and a certificate, presented, respectively, to the student presenting the best paper before a meeting of the Duke student branch of the Institute, and to that student of the Department of Mechanical Engineering making the highest scholastic record in aeronautical engineering courses.

The Pegram Chemistry Club Prize will be awarded in the spring of each year for scholarship in chemistry, physics, and mathematics. The prize is to consist of one-year junior membership in the American Chemical Society, and a one-year subscription to either the Journal of the American Chemical Society, or to Industrial and Engineering Chemistry. To qualify for this prize the student must (1) be enrolled as an undergraduate of Duke University and (2) be taking or have taken a fourthyear chemistry course. The winner of this prize is to be selected by a committee consisting of at least one Faculty member and at least two members of the Pegram Chemistry Club; the selection is to be based on the quality-point average for all courses taken in chemistry, physics, and mathematics. In case of a tie equal awards will be given.

The Sigma Xi Prize. The Society of the Sigma Xi, honorary scientific society, is devoted to the encouragement of scientific research, and seeks to stimulate those who show promise of accomplishment in scientific research. As an encouragement to younger men and women the Duke Chapter of Sigma Xi has established the following prizes to be awarded annually to students resident at Duke University: $\$ 20.00$ for an undergraduate project or paper, $\$ 20.00$ for a Master's thesis or its equivalent, and $\$ 40.00$ for a Ph.D. dissertation or its equivalent. Nominations, recommendations, copies of theses, reports or other material must be in the hands of the Secretary of the Chapter on or before May 5.

The Erasmus Club Prize in the Humanities. The Erasmus Club, founded in 1925, a group of Duke faculty members interested in research in language, literature, and the arts, seeks to stimulate interest and study in these fields. To encourage Duke students in this field, the Erasmus Club has established an annual prize, amounting to $\$ 25.00$, for the best original essay by an undergraduate which embodies the results of research, criticism, or evaluation in some subject in the humanities. Prospective competitors should consult some member of the Faculty, preferably their major professor. Essays must be typewritten and must be submitted to the president of the Club before the first of April. The Club reserves the right to withhold the prize in case there are no essays of acceptable quality.

## STUDENT ORGANIZATIONS AND ACTIVITIES

The Men's Association of Duke University comprises all men students in Trinity College. It functions through its officers and a council to initiate policies and to oversee matters within the control of the student body. The council is composed of nine members: three executive officers, two representatives from the Senior Class, two from the Junior Class, and one from the Sophomore Class, and one from the College of Engineering.

The Women's Student Government Association is similar in character to the men's association. Its council is composed of the officers of the association and ex officio of the Y.W.C.A. president and an undergraduate representative.

The Young Men's Christian Association and the Young Women's Christian Association are branches of the national student Christian Associations. Each body aims to enrich not only the religious life of its members as individuals but also to promote religious group activity. Delegates are sent each year to summer conferences, state conventions, interstate conventions, and the state Bible and missionary institutes. Every year a series of special religious services is held. The Open Forum Bible Class is conducted under the auspices of the Church Board.

Other organizations and activities include the following:
Bench and Bar Association (Pre-Legal Undergraduates); Classical Club (Men); "Cogs" (College Organization for General Service); Debate Council (Men); Debating Club (Women); Duke University Church (Interdenominational) ; Duke University Pre-Medical Society (Undergraduate Medical Group) ; Hoof and Horn Club; Isotes (Independent Social Group-Women) ; Ministerial Fellowship; Modern Dance Group; Nereidian Club (Women) ; Poetry Club; Quadrangle Pictures; Student Forum Committee (Women) ; Student Religious Council; The Duke Players; The Explorers' Club;* Town Boys' Club; Town Girls' Club; Trident Club: Social Activities Board; Women's Athletic Association; and W. H. Pegram Chemistry Club.

## HONORARY ORDERS AND FRATERNITIES (NATIONAL)

Chi Delta Phi (Literary-Women); Kappa Delta Pi (Education); Omicron Delta Kappa (Leadership-Men) : Phi Beta Kappa (Scholarship) ; Phi Eta Sigma (Freshman Scholarship-Men) ; Pi Mu Epsilon (Mathematics) ; Sigma Delta Pi (Spanish) ; Tau Kappa Alpha (Forensic) ; Tau Psi Omega (French) ; Theta Aplha Phi (Dramatic).

## HONORARY ORDERS AND FRATERNITIES (LOCAL)

Beta Omega Sigma (Sophomore-Men) ; Deltá Phi Rho Alpha (Ath-letic-Women) ; 9019 (Scholarship-Men) : Ivy (Freshman Scholarship —Women) ;* Red Friars (Leadership-Men); Sandals (Sophomore-

[^45]Women) ; Tombs (Athletic-Men) ; White Duchy (LeadershipWomen).

## engineering organizations and fraternities

American Institute of Electrical Engineers; American Society of Civil Engineers; American Society of Mechanical Engineers; Institute of the Aeronautical Sciences; Delta Epsilon Sigma (Duke Honorary Engineering Fraternity) ; Engineering Student Government Association; Engineering Town Boys' Club.

## MUSICAL ORGANIZATIONS AND FRATERNITIES

Kappa Kappa Psi (National Band Fraternity) ;* The Duke University Instrumental Music Association, comprised of members from Duke University Band, Duke University Orchestra, and chamber music groups; The Men's Glee Club; The Women's Glee Club; The University Chapel Choir; The Woman's Music Study Club.

## SOCIAL FRATERNITIES (NATIONAL)

## (The Men's Panhellenic Council)

Alpha Tau Omega; Beta Theta Pi ; Chi Phi ; Delta Sigma Phi ; Delta Tau Delta; Kappa Alpha; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Kappa Psi; Phi Kappa Sigına; Pi Kappa Alpha; Pi Kappa Phi ; Sigma Alpha Epsilon; Sigma Chi ; Sigma Nu; Sigma Phi Epsilon; Zeta Beta Tau.

## SOCIAL SORORITIES (NATIONAL)

(The Women's Panhellenic Council)
Alpha Chi Omega; Alpha Delta Pi; Alpha Phi; Alpha Epsilon Phi ; Delta Delta Delta; Delta Gamma; Kappa Alpha Theta; Kappa Delta; Kappa Kappa Gamma; Phi Mu; Pi Beta Phi; Sigma Kappa; Zeta Tau Alpha.

## STUDENT PUBLICATIONS <br> (Publications Council)

Archive (Monthly) ; Chanticleer (Annual) ; Chronicle (Semiweekly); Duke 'n' Duchess (Monthly Humor) ;* DukEngineer (Bimonthly).

## STUDENT ACTIVITIES OFFICE

The Student Activities Office was established for the purpose of assisting and co-ordinating the financial activities of the various student organizations in Trinity College.

The office offers to student organizations a banking service through the office of the University Treasurer.

There is no charge for this service.
The Student Activities Office, co-operating with the University Purchasing Department, also serves in the capacity of purchasing agent for its affiliated student organizations. Problems of a general nature having to do with extracurricular activities may be discussed with this office.

* Inactive for duration of the war.


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# BULLETIN OF DUKE UNIVERSITY 

## The School of Nursing

1946-1947


PUBLISHED BY THE UNIVERSITY DURHAM. NORTH CAROLINA

## ANNUAL BULLETINS

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For Bulletin of Undergraduate Instruction, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin or The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forestry, Duke University, Durham, N. C.
For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.
For Bulletin of The School of Medicine, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.

For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

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# BULLETIN 

# OF <br> Duke University 

THE SCHOOL OF NURSING


1946-1947

DURHAM, NORTH CAROLINA


## FOREWORD

This bulletin is issued for prospective students of nursing. Admissions into any class are made only on the understanding that every decision of the School of Nursing Curriculum Committee shall apply to all students, even though it is made subsequently to their enrollment in the School. At frequent intervals the Committee reviews the records of all students, and those whose progress has been unsatisfactory may be required to leave the School. Only those will be advanced who, in the opinion of the COMMITTEE, GIVE PROMISE OF BEING A CREDIT TO THEMSELVES AND TO THE School.

## SCHOOL OF NURSING CALENDAR 1946-1947

1946
March 25. Monday-Spring Quarter begins.
April 22. Monday-Easter Monday: a holiday.
June 8. Saturday-Spring Quarter ends.
June 10. Monday-Summer Quarter begins.
Aug. 24. Saturday-Summer Quarter ends.
Oct. 3. Registration of new students.
Oct. 7. Fall Quarter begins.
Nov. 28. Thursday-Thanksgiving: a holiday.
Dec. 21. Fall Quarter ends.

1947
Jan. 6. Monday-Winter Quarter begins.
March 22. Saturday-Winter Quarter ends.
March 31. Monday-Spring Quarter begins.
April 7. Monday-Easter Monday: a holiday.
June 14. Saturday-Spring Quarter ends.
PRESIDENT OF UNJVERSITY

| DEAN NURSING HEAD OF SERVICE | PROF. OF PATH. | $\begin{aligned} & \text { PROF. OF } \\ & \text { BACT. } \end{aligned}$ | PROF. OF BIOCHEM. | $\begin{array}{\|l\|} \hline \text { PROF. OF } \\ \text { PHYSIOL. } \\ \text { - AND } \\ \text { PHARM } \\ \hline \end{array}$ | Prof Of anat. | $\begin{aligned} & \text { DEAN } \\ & \text { \& PROF. } \\ & \text { OF PED. } \end{aligned}$ | $\left[\begin{array}{l} \text { PROF. Of } \\ \text { MED. \& } \\ \text { HEAD OF } \\ \text { SERVICE } \end{array}\right.$ | PROF: of <br>  <br> HEAD Of <br> SERVICE | PROF OF <br> OB.GYN 8 <br> HEAD OF <br> SERVICE | PROF.OF PSYCH. \& HEAD Of SERVICE | SUP. Of |
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NURSING SCHOOL
CURRICULUM
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| DEAN OF NURSING |
| :--- |
| PROF. OF BIOCHEM |
| PROF. OF MED. |
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| EDUCATION |
| DIRECTOR OF |
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Carol Poole

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Theresa E. Horton
Marion Batchelder
Mildred M. Sherwood
Joyce E. Warren
Helen M. Nahm

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Carol Poole, Chairman Margaret I. Pinkerton

Elsie G. Moss
Hilda C. Burnham Rosabelle W. Hampton

## LIBRARY COMMITTEE

Rosabelle W. Hampton, Chairman Mildred M. Sherwood
Margaret I. Pinkerton
Hilda C. Burnham
Mrs. Lelia Rezner, Librarian

## FACULTY OF THE SCHOOL OF NURSING

MARGARET ISABEL PINKERTON, R.N., B.S.

## Dean of the School of Nursing and Professor of Nursing Education

Diploma, University of Virginia Hospital School of Nursing, 1927; Assistant Superintendent of Nurses, Stuart Circle Hospital, Richmond, Va., 1928-30; Hostess, University of Virginia Hospital, 1930-31; Assistant Superintendent of Nurses, University of Virginia Hospital, 1931-35; B.S. in Nursing Education, Teachers College, Columbia University, 1936; Nursing Arts Instructor, Washington University School of Nursing, St. Louis, Mo., 1936-37; Superintendent of Nurses, Barnes Hospital, 1938-39; Dean of the School of Nursing and Professor of Nursing Education, 1939-.

ELSIE GERTRUDE MOSS, R.N.

## First Assistant to the Dcan

Diploma, Philadelphia General Hospital, Philadelphia, Pa., 1935; Staff Nurse, Duke Hospital, 1935-41; Second Assistant to the Night Supervisor, 1941-42; First Assistant to the Night Supervisor, 1942-44; Private Floor Supervisor, 1944-45; First Assistant to the Dean, 1945-.

## HILDA CLAIRE BURNHAM, R.N.

## Instructor in Principles and Practice of Nursing and Instructor of Nursing Education

Johns Hopkins University, 1925-27 and 1932-34; Diploma, Johns Hopkins Hospital School of Nursing, 1930; Head Nurse, Isolation Ward, Johns Hopkins Hospital, 1930-31; Assistant Night Supervisor, Johns Hopkins Hospital, 1931-33; Night Supervisor, Osler Medical Clinic, Johns Hopkins Hospital, 1933-34; Assistant Supervisor and Ward Instructor, Osler Medical Clinic, Johns Hopkins Hospital, 1934-37; Medical Supervisor and Instructor in Medicine, Duke Hospital, 1937-39; Second Assistant to the Dean, 1939-40; Instructor in Principles and Practice of Nursing and Instructor in Nursing Education, 1940-.

## HELEN W. ABBOTT, R.N. <br> Director of Nurses' Residences

Diploma, Johns Hopkins School of Nursing, 1914; Private duty. Baltimore, Md., 1914-15; Operating Room and Pediatric Supervisor, Bellevue Allied Hospitals, 1915-16; Nursing Arts Instructor, Augusta University Hospital, 1917; Supervisor of Nurses' Quarters, Fort Meade, Md., 1918; Practical Nursing Instructor, Army School of Nursing, Fort Meade, Md., 1919; Director of Nurses' Residences, Duke Hospital, 1930-.

## AUGUSTA LAXTON, R.N., B.S.

## Night Supervisor

B.S., Florida State College for Women, Tallahassee, Fla., 1921; Diploma, Johns Hopkins Hospital School of Nursing, 1926; District Nurse, Co-operative Nursing Association, Charlotte, N. C., 1928-30; Night Supervisor, Duke Hospital, 1930-36; Head Nurse, Maternity Clinic, Charlotte, N. C., 1936-39; Night Supervisor, 1939-.

## MARION FRANCES BATCHELDER, R.N.

Instructor in Operating Room Technique, Superivor of the Operating Room
Diploma, Peter Bent Brigham Hospital School of Nursing, Boston, Mass., 1920; Head Nurse, 1921-23; Supervisor of Operating Room, Peter Bent Brigham Hospital, 1923-27; Head Nurse, Operating Room, Johns Hopkins Hospital, 1927-30; Supervisor of Operating Room, 1930-.

## MILDRED M. SHERIVOOD, R.N.

## Instructor in Pediatrics and Supervisor of Pediatric Service

Diploma, Mount Sinai Hospital, New York City, 1923; Head Nurse, Mount Sinai Hospital, 1923-26; Head Nurse, Johns Hopkins Hospital, 1926-30; Instructor in Pediatrics and Supervisor of Pediatric Service, 1930-.

## ROSABELLE WEHUNT HAMPTON, R.N.

## Instructor in Surgery and Supervisor of Surgical Service

Diploma, Duke University School of Nursing, 1936; Assistant Head Nurse, Duke Hospital, 1936-37; Head Nurse, Women's Surgical Ward, 1937-41; University of North Carolina, 1937 and 1940; Teachers College, Columbia University, 1941; Instructor in Surgery and Supervisor of Surgical Nursing, 1941-.

## JULIA BRADSHAW SUITT, R.N.

## Supervisor of Nursing Service in Dispensary

North Carolina College for Women, Greensboro, N. C., 1919-20; Diploma, Duke University School of Nursing, 1934; Assistant Head Nurse, Medical Ward, 1934-36; Head Nurse, Private Surgical Ward, 1936-43; Superaisor of Nursing Serzice in Dispensary, 1943-.

## OLIVE HARDING, R.N.

## Assistant Superiisor of the Operating Room

Carson-Newman College, Jefferson City, Tenn., 1918-21; Diploma, Kings Mountain Memorial Hospital, Bristol, Va., 1929; Valparaiso University, Valparaiso, Ind., 1923; Night Supervisor, Marsh Hospital, Kingsport, Tenn., 1929; Postgraduate Course in Operating Room, Cook County Hospital, Chicago, Ill., 1930; General Duty, Duke Hospital, 1930-34; Head Nurse in Operating Room, 1934-42; Assistant Supervisor of the Operating Room, 1942-.

## MOZELLE MITCHELL ATWELL, R.N.

## Assistant Science Instructor

University of Alabama, University, Ala., 1941-42; Diploma, Duke University School of Nursing, 1945; Assistant Science Instructor, 1945-.

SARAH ROBERTS BOND, R.N.
Assistant Science Instructor
Junior College of Augusta, Augusta, Ga., 1940-41; Georgia State College for Women, Milledgeville, Ga., 1941-42; Diploma, Duke University School of Nursing, 1945; Health Nurse, July, 1945-October, 1945; Assistant Science Instructor, October, 1945-.

## ELLEN KEESEE CRAVER, R.N., B.S.

## Nursing Office Assistant

Averett College, Danville, Va., 1938-39; Madison College, Harrisonburg, Va., 1939-40; Diploma and B.S. in Nursing, Duke Úniversity School of Nursing, 1943; Second Assistant to the Night Supervisor, 1943-44; First Assistant to the Night Supervisor, 1944-45; Nursing Office Assistant, 1946 -.

## HATTIE MILDRED CRAWLEY, R.N., B.S.

## Assistant Instructor in Pediatrics and Supervisor of Pediatric Service

Mitchell Collegé, Statesville, N. C., 1940-41; Diploma and B.S. in Nursing, Duke University School of Nursing, 1944; Head Nurse on Women's Medical Ward, Duke Hospital, July, 1944-December, 1944; Staff Nurse, Children's Hospital of Philadelphia, February, 1945-April, 1945; Assistant Clinical Instructor, Children's Hospital at Philadelphia, April, 1945-February, 1946; Assistant Instructor in Pediatrics and Supervisor of Pediatric Service, 1946 -.

## RUTH DAVIS, R.N.

## Assistant Night Supervisor

Presbyterian College, Clinton, S. C., 1940-42; Diploma, Duke University School of Nursing, 1945; Assistant Night Supervisor, 1945-.

## JOYCE WHITFIELD DORTCH, R.N.

Hcalth Nurse

Diploma, Duke University School of Nursing, 1946; Health Nurse, 1946-.

# DOROTHY DEATON DRATZ, R.N. 

## Pricate Floor Superivor

Flora Macdonald College, Red Springs, N. C., 1931-32; Diploma, Duke Úniversity School of Nursing, 1941; General Duty, 19+1.42; Assistant Head Nurse on Surgical Ward, 1942; Assistant Head Nurse on Men's Medical Ward, 1942-43; Head Nurse in Delivery Room, 1943-44; Head Nurse on Private Medical Ward, 1944.45; Private Floor Supervisor, 1945-.

JESSAMINE ROBERTS FLEMING, R.N., B.S.
Assistant to the Instructor in Principles and Practice of Nursing
Flora Macdonald College, Red Springs, N. C., 1939-41; Diploma and B.S. in Nursing, Duke University School of Nursing, 1944; Head Nurse on Men's Surgical Ward, 1944-45; Assistant to the Instructor in Principles and Practice of Nursing, 1945-.

## EDITH GEORGIANA GUNTER, R.N., B.S.

Assistant to the Instructor in Surgery and Supervisor of Surgical Service
Lincoln Memorial University, Harrogate, Tenn., 1939-41; Diploma and B.S. in Nursing, Duke University School of Nursing, 1944; Teachers College, Columbia Cniversity, Summer Session, 1945; Assistant to the Instructor in Surgery and Superzisor of Surgical Service, 194f-.

## KATIE ADAMS HODGE, R.N., B.S.

Assistant to the Instructor in Principles and Practice of Nursing
Madison College, Harrisonburg, Va., 1938-39; Diploma, B.S. in Nursing, Duke University School of Nursing, 1943; Assistant to the Instructor in Principles and Practice of Nursing, 1943-.

THERESA ELIZABETH HORTON, R.N., B.S.
Instructor in Obstetrics and Gynecology and Superivsor of Obstetrical and Gynecological Service
Catawba College, Salisbury, N. C., 1936-38; Diploma and B.S. in Nursing, Duke University School of Nursing, 1941; P.R.N. Day Duty, 1941-42; Head Nurse on Colored Obstetrical and Gynecological Ward, 1942-44; Assistant Instructor in Obstetrics and Gynecology and Supervisor of Obstetrical and Gynecological Service, 1944-45; Instructor in Obstetrics and Gynecology and Superiisor of Obstetrical and Gynecological Sereice, 1945-.

## EUGENIA RICHARDS LAMBETH, R.N., B.S.

Assistant to the Instructor in Principles and Practice of Nursing
Queens-Chicora College, Charlotte, N. C., 1930-31; Mitchell College, 1931-32; Diploma and B.S. in Nursing, Duke University 'School of Nursing, 1939; Assistant Head Nurse on Women's Surgical Ward, 1939-41; Head Nurse on Women's Surgical Ward, 1941-42; University of North Carolina, 1941; Assistant to the Instructor in Principles and Practice of Nursing, 1942-.

ELIZABETH BIDDLE LAWRENCE, R.N., B.S.
Assistant Instructor in Obstetrics and Gynecology and Supervisor of Obstetrical and Gynecological Service
Woman's College, Duke University, 1940-42; Diploma and B.S. in Nursing, Duke University School of Nursing, 1945; Assistant Head Nurse on Gynecological Ward, August, 1945-October, 1945; Assistant Instructor in Obstetrics and Gynecology and Supervisor of Obstetrical and Gynecological Service, 1945-.

## MARY ALICE MOORE, R.N., B.S.

Assistant to the Instructor in Principles and Practice of Nursing
Madison College, Harrisonburg, Va., 1937-39; Diploma and B.S. in Nursing, Duke University School of Nursing, 194?; Head Nurse on Men's Surgical Ward, 19+2-43; Assistant to the Instructor in Principles and Practice of Nursing, 1943-.

## HELEN NAHM, R.N., B.S., M.S.

Director, Division of Nursing Education, Department of Education
Diploma, University of Missouri School of Nursing, 1924; A.B., University of Missouri, 1926; M.S., University of Minnesota, 1939 now completing Ph.D. degree, University of Minnesota; Instructor, Scott and White Hospital, Temple, Texas, 1927-30; Director, University of Missouri School of Nursing, Columbia, Mo. 1935-41; Director, HamlineAsbury School of Nursing, St. Paul, Missouri, 1942-45; Director, Dicision of Nursing Education, Duke Unizersity, 1946-.

CAROL POOLE, R.N., B.S.<br>Science Instructor


#### Abstract

Woman's College of Furman University, Greenville, S. C., 1937-39; Diploma and B.S. in Nursing, Duke University School of Nursing, 1942; Assistant Head Nurse on Women's Medical Ward, 1942-43; Head Nurse on Women's Medical Ward, 1943-44; Private Floor Supervisor, February, 1944-December, 1944; Teachers College, Columbia University, Summer Session, 1945: Science Instructor, December, 1944-.


## BETTY CLAIRE RHOAD, R.N.

Assistant Night Supervisor
Winthrop College, Rock Hill, S. C., 1941-42; Diploma, Duke University School of Nursing, 1945; Assistant Night Supervisor, 1945-.

DOROTHY A. ROGERS, R.N., B.S.
Assistant Night Supervisor
Junior College of Augusta, Augusta, Ga., 1934-36; Diploma and B.S. in Nursing, Duke University School of Nursing, 1939; General Duty, Duke Hospital, 1940; Western Reserve University, Cleveland, Ohio, 1941; Instructor in Nursing Arts, Holzer Hospital, Gallipolis, Ohio, 1940-41; Educational Director, Cabarrus County Hospital, Concord, N. C., 1942-43; Instructor of Medical and Surgical Nursing, Norfolk General Hospital, Norfolk, Va., 1944; Assistant Night Supervisor, 1945-.

## EDITH JUNE STONE, R.N.

Nursing Office Assistant
Diploma, Duke University School of Nursing, 1942; Nursing Office Assistant, 1942-. ANNIE LOUISE THORPE, R.N.
Assistant to the Instructor in Principles and Practice of Nursing
Winthrop College, Rock Hill, S. C., 1941-42; Diploma in Nursing, Duke University School of Nursing, 1946; Assistant to the Instructor in Principles and Practice of Nursing, 1946 -.

JOYCE ELIZABETH WARREN, R.N., B.S., A.B.

Instructor in Medicine and Supervisor of Medical Service
Pineland College, Salemburg, N. C., 1928-30; East Carolina Teachers College, 1930-32; Diploma and B.S. in Nursing, Duke University School of Nursing, 1945; Nursing Office Assistant, January, 1945-July, 1945; Assistant Surgical Supervisor, July, 1945-February, 1946; Instructor in Medicine and Supervisor of Mcdical Service, February, 1946-.

## ESTELLE THOMAS BULLOCK

## Secretary to the Dean of the School of Nursing

## HEAD NURSES

ANNE ELIZABETH BENNETT, R.N., B.S., A.B.
Head Nurse on Women's Surgical Ward.
Mitchell Junior College, Statesville, N. C., 1934-35; Greensboro College, Greensboro, N. C., 1935-1938; Diploma and B.S. in Nursing, Duke University School of Nursing, 1944; Head Nurse on Women's Surgical Ward, 1944-.

## EDITH CELESTIA COOKE, R.N.

## Head Nurse on Colored Medical and Surgical Ward

Duke University, 1941-43; University Hospitals of Cleveland, Cleveland, Ohio, 6 mo. Senior Cadet Affiliation, October, 1945-April, 1946; Diploma in Nursing, Duke University School of Nursing, 1946; Head Nurse on Colored Medical and Surgical Ward, 1946-.

## MARTHA LEE COVINGTON, R.N., B.S. <br> Head Nurse on Men's Surgical Ward

Mitchell Junior College, Statesville, N. C., 1940-42; Diploma and B.S. in Nursing, Duke University School of Nursing, 1945; Assistant Head Nurse in Delivery Room, 1945; Head Nurse on Men's Surgical Ward, 1946-.

# JANICE DENNY, R.N. <br> Head Nurse on Men's Surgical Ward <br> Biltmore College, Asheville, N. C., 1941.42; Diploma, Duke University School of Nursing, 

 1945; Head Nurse on Men's Surgical Ward, 1945-.
## LOIS FRANCES DIXON, R.N.

## Head Nurse on Private Medical Ward

Diploma, Thompson Memorial Hospital, Lumberton, N. C., 1938; Private Duty, Lumberton, N. C., 1939-42; General Duty. Watts Hospital, Durham, N. C., 1942-43; Assistant Head Nurse on Private Surgical Ward, 1943; Head Nurse on Private Medical Ward, 1944-.

## MARGIE A. DULL, R.N.

Head Nurse on Men's Medical Ward
Salem College, Winston-Salem, N. C., 1940-41; Diploma, Duke University School of Nursing, 1944; Assistant Head Nurse on Obstetrical and Gynecological Ward, 1944-45; Head Nurse on Men's Medical Ward, 1945-.

MARGARET MILTON GATES, R.N.
Head Nurse on Colored Obstetrical and Gynecological Ward
Middle Georgia College, 1936-38; Diploma, Duke University School of Nursing, 1941; Assistant Head Nurse on Obstetrical Ward, 1941-42; Assistant Head Nurse on Colored Obstetrical and Gynecological Ward, 1943-44; Head' Nurse on Colored Obstetrical and Gynecological Ward, 1944-.

## CECILIA W. GLEN, R.N.

## Head Nurse on Women's Surgical Ward

Duke University, 1941-42; Diploma, Duke University School of Nursing, 1946; Head Nurse on Women's'Surgical 'Ward, 1946 -.

## PATRICIA W. GREEN, R.N., B.S.

Head Nurse on Prizate Medical Ward
Woman's College, Duke University, 1938-41; Diploma and B.S. in Nursing, Duke University School of Nursing, 1944; Assistant Head Nurse, Private Medical Ward, 1944-45; Head Nurse on Prizate Medical Ward, 1945-.

## LOLA PAGE JONES, R.N.

Head Nurse in Nursery
Diploma, Baptist Hospital, Winston-Salem, N. C., 1929; Postgraduate Work, Lying-In Hospital, New York, 1930; Private Duty, Raleigh, N. C., 1931-32; Assistant Head Nurse, Nursery in Duke Hospital, 1932-37; Head Nurse in Nursery, 1937-.

## TWILA QUARLES POPE, R.N.

## Head Nurse on Obstetrical Ward

Diploma, North Carolina State Sanatorium, Sanatorium, N. C., 1940; General Duty, Duke Hospital, 1940-42; Assistant Head Nurse on Obstetrical Ward, 1942; Head Nurse on Obstetrical Ward, 1942-.

## ELENORE CUTLIP SALES, R.N., B.S.

Head Nurse on Psychiatric Ward
Marshall College, Huntington, W. Va.. 1938-40; Diploma and B.S. in Nursing, Duke University School of Nursing, 1943; Head Nurse on Private Medical Ward, 1943-44; Head Nurse on Psychiatric Ward, 1944-.

## GRACE SHIELDS, R.N.

## Head Nurse on Private Surgical Ward

Diploma, Memorial Hospital, Danville, Va., 1930; Private Duty, 1930-31; General Duty, Duke Hospital, 1931-35; Assistant Head Nurse on Private Surgical Ward, 1935-40; Head Nurse on Private Surgical Ward, 1940-.

## LUCY FAY SMITH, R.N.

## Head Nurse on Women's Medical Ward

Salem College, Winston-Salem, N. C., 1942-43; Diploma in Nursing, Duke University School of Nursing, 1946; Head Nurse on Women's Medical Ward, 1946-.

## F. SUE TAYLOR, R.N.

## Head Nurse on Obstetrical and Gynecological Ward

Diploma, The Watts Hospital School of Nursing, 19+2; General Duty, Duke Hospital, 1942; Assistant Head Nurse, Obstetric and Gynecological Ward, 1942-43; General Duty in Dispensary, 1943; Assistant Head Nurse, Obstetrical and Gynecological Ward, 1943-44; Head Nurse, Obstetrical and Gynecological Ward, 1944-.

## VIRGINIA LOUISE TAYLOR, R.N., B.S.

## Head Nurse on Private Surgical Ward

St. Mary's School and Junior College, Raleigh, N. C., 1940-42; Diploma and B.S. in Nursing, Duke University School of Nursing, 1945; Head Nurse on Private Surgical Ward, 1945-.

## ELEANORA TORRENCE, R.N.

## Head Nurse on Surgical Pediatric Ward

Diploma, Knoxville General Hospital, Knoxville, Tenn., 1935; General Duty, Physicians and Surgeons Hospital, Cleveland, Tenn., 1935-36; General Duty, Duke Hospital, $1936 \cdot$ 41; Assistant Head Nurse, Pediatric Ward, 1941-44; Head Nurse, Surgical Pediatric Ward, 1944-.

## MEMBERS OF OTHER FACULTIES OF THE UNIVERSITY GIVING INSTRUCTION

EDWIN PASCAL ALYEA, S.B., M.D., Clinical Professor of Urology.
S.B., Princeton, 1919; M.D., Johns Hopkins. 1923; Int. in Med., Int. and Ass't. Res. in Surg.; Ass't. Res. and Res. in Urol., Johns Hopkins Hosp., 1923-1929; Ass't. and Instr. in Surg., and Instr. in Urol., Johns Hopkins Med. Sch., 1925-1930; Urologist, Duke Hopsital, 1930 -.
WILLIAM BANKS ANDERSON, A.B., M.D., Associate Professor of Surgery in Charge of Ophthalmology.
A.B., North Carolina, 1920; M.D., Johns Hopkins, 1924; Int., Union Mem. Hosp., Balto., 1924-1925; Int., Mass. Eye and Ear Infirmary, 1925-1927; Ophthalmologist, Duke Hospital, 1930 -.

JAY MORRIS ARENA, B.S., M.D., Assistant Professor of Pediatrics.
B.S., West Virginia, 1930; M.D., Duke, 1932; Int. in Ped., Johns Hopkins Hosp., 1932-1933; Ass't. Res., Res., and Assistant Pediatrician, Duke Hospital, 1933 -.

LENOX DIAL BAKER, M.D., Associate Professor of Surgery in Charge of Orthopaedics.
M.D., Duke, 1933; Int. in Orth. Surg. and in Gen'l. Surg.; Ass't. Res. in Orth. Surg., and Res. in Orth., Johns Hopkins Hosp., 1933-1937; Res., Children's Hosp. Sch., 1936; Ass't. and Instr., Orth. Surg., Johns Hopkins Med. Sch., 1935-1937; Orthopaedist, Duke Hospital, 1937-.
MARGARET BLEE, R.N., B.S., M.A., Associate Professor of Public Health Nursing.
General Hospital, Pediatrics and Antepartum, Kansas City, Mo., 1923-26; Visiting Nurse Association, Antepartum Service and Community, Kansas City, Mo., 1926-29; Family Case Worker, Provident Association, Kansas City, Mo., 1931-33; County Nurse, Santa Fe County, New Mexico, Generalized Service, 1929-31; Educational Director, Visiting Nurse Association, Denver, Colo., 1933-37; Instructor in Public Health Nursing and Supervisor of Field Program, University of California, Berkeley, Calif., 1937. 40; Assistant to Guest Instructor, University of California, Summer Session, 1940; Assoriate Professor of Public Health Nursing, University of North Carolina, Chapel Hill, N. C., 1941-.
JOHN S. BRADWAY, A.B., A.M., LL.B., Professor of Laze and Director of the Legal Aid Clinic.
A.B. 1911, A.M. 1915, Haverford College; LL.B. 1914, University of Pennsylvania; general practice, 1914-29; Legal Aid Society of Philadelphia, 1914-20; chief counsel, Philadelphia Legal Aid Bureau, 1920-22; Secretary, National Association of Legal Aid Organizations, 1923-40, President, 1940-42; Visiting Professor of Law and Director of the Legal Aid Clinic, University of Southern California, summer 1928; Professor of Law and Director of the Legal Aid Clinic, University of Southern California, 1929. 31; Professor of Law and Director of the Legal Aid Clinic, Duke University, 1931-.

JASPER LAMAR CALLAWAY, B.S., M.D., Associate Professor of Medicine in Charge of Dermatology and Syphilology.
M.D., Duke, 1932; B.S., Alabama, 1935; Ass't. Instr. in Derm. and Syphil., Univ. of Pa. Med. Sch., 1932-1933; Int. and Ass't. Res. in Med., Duke Hosp., 1933-1935; Instr. in Phys. Diag. and Path., Univ. of Alabama, Jan.July, 1935; Instr. in Derm. and Syphil., Pa. Sch. of Med., 1935-1937; Ass't. Field Physician, U. S. Public Health Serv., Feb.July, 1937; Assistant Physician and Dcrmatologist, Duke Hospital, 1937-.
R. CHARMAN CARROLL, R.N., A.B., M.D., Associate in Neuropsychiatry. (Consultant Neuropsychiatrist to the School of Nursing.)
R.N., Highland Hospital, 1930; A.B., Duke, 1935; M.D., Colorado, 1939; Int. in Ped., 1939-1940; and Res. in Psychiatry, Duke Hospital, 1940-1942; Assoc. in Psych., High.' land Hosp., Asheville, N. C., 1942-1944; Associate in Neuropsychiatry, Duke Hospital, 1944-.
BAYARD CARTER, A.B., B.A., M.A., M.D., Professor of Obstetrics and Gyne cology.
A.B., Delaware, 1920; B.A. and M.A., Oxford, 1923 and 1932; M.D. Johns Hopkins, 1925;' Member Obs. and Gyn. Staff of New Haven Hosp. and Yale Med. Sch., 1925 . 1929; Assoc. Prof. Obs. and Gyn., and Head of Dept., Univ. of Va. Med. Sch., 19291931; Obstetrician and Gynecologist, Duke Hospital, 1931-.
NORMAN FRANCIS CONANT, B.S., A.M., Ph.D., Associate Professor of Bacteriology and Mycology.
B.S., Bates, 1930; A.M. and Ph.D., Harvard, 1931 and 1933; Research Fellow, Laboratoire de Parasitologie, Fac. de Médecine, Paris, 1933-1934; Research Ass't., Harvard Med. Sch. and Mass. Gen'l. Hosp.. Jan. 1 to Oct 1, 1935; 1935-.
WILBURT CORNELL DAVISON, A.B., B.A., B.Sc., M.A., M.D., D.Sc., LL.D., Dean of the School of Medicine and Professor of Pediatrics.
A.B., Princeton, 1913; B.A., B.Sc., and M.A., Oxford, 1915, 1916, and 1919; M.D., Johns Hopkins, 1917; D.Sc., Wake Forest, 1932; LL.D., North Carolina, 1944; Int., Radcliffe Infirmary, 1915-1916; Ass't. Res., Assoc. Ped., Acting Pediatrician in Charge, Johns Hopkins Hosp., 1919-1927; Instr., Assoc., Assoc. Prof, Acting Head of Dept. of Ped., and Ass't. Dean, Johns Hopkins Med. Sch., 1919-1927; Pediatrician, Duke Hospital, 1927-.
SUSAN COONS DEES, A.B., M.S., M.D., Associate in Pediatrics.
A.B., Goucher, 1930; M.D., Johns Hopkins, 1934; M.S., Minnesota, 1938; Int., Johns Hopkins Hosp., 1934-1935, and Ass't. Res. in Med., Strong Mem. Hosp., 1935-1936; Int., in Path., Balto. City Hosps., and Ass't., Johns Hopkins Protein Clinic, 19361937; Research Fellow in Ped., U'niv. of Minnesota Hosp., 1937.1938; Ass't., Disp. Physician, Johns Hopkins Hosp., 1938-1939; Assistant Pediatrician, Duke Hospital, 1939-.

WATT WEEMS EAGLE, A.B., M.D., Associate Professor of Surgery in Charge of Otolaryngology.
A.B., North Carolina, 1918; Grad. Stud., North Carolina, 1918-1919; M.D., Johns Hopkins, 1925; Int., Church Home and Infirmary, Baltimore, 1925-1926; Int., Ass't. Res. and Res. in Laryngol., Johns Hopkins Hosp., 1926-1929; Ass't. and Instr. In Laryngol., Johns Hopkins Med. 'Sch., 1927-1930; Otolaryngologist, Duke Hospital, 1930-.
WILEY DAVIS FORBUS, A.B., M.D., Professor of Pathology:
A.B., Washington and Lee, 1916; M.D., Johns Hopkins, 1923; Res. and Assoc. Pathologist, Johns Hopkins Hosp., 1926-1927 and 1929-1930; Guest Ass't. Pathol. Inst., Ludwig Maximilian's Univ.. Munich, 1928; Pathol., Balto. City Hosps.; Consulting Pathologist, Frederick City Hosp., 1925-1930; Ass't., Instr., and Assoc. in Path., Johns Hopkins M'ed. Sch., 1923-1930; Pathologist, Duke Hospital, 1930-.
MAURICE H. GREENHILL, A.B., M.D., Associate Professor of Neuropsychiatry, Acting Head of the Department.
A.B., Rochester, 1931; M.D., Chicago, 1936; Int, Los Angeles Co. Gen'l. Hosp., $1936-$ 1937; Psychiatrist, Worcester State Hosp., 1937-1939; Res. Psych., Mass. Gen'l. Hosp., 1939-1940; Rockefeller Fellow in Neurol, 1940-1941; Res. Fellow in Neurol., Harvard Med. Sch., 1940-1941; Res. Assoc., Neurological Unit, Boston City Hosp., 1940-1941; Acting Chairman, Dept. of Neuropsychiatry; Psychiatric Consultant, N. C. State Board of Charities and Public Health, Univ. of N. C.; Associate Neuropsychiatrist, Duke Hospital, 1940-.
KEITH SANFORD GRIMSON, B.A., B.S., M.D., Associate in Surgery'.
B.A. and B.S., North Dakota, 1930 and 1931; M.D., Rush Med. Coll., 1933; Int., Presbyterian Hosp., Chicago, 1933-1935; Ass't. Res., Res., and Instr. in Surg., Chicago, 1935-1942; Assistant Surgeon, Dwke Hospital, 1942-.
*FREDERIC M. HANES, A.B., A.M., M.D., D.Sc., Florence McAlister Professor of Medicine.
A.B., North Carolina, 1903; A.M., Harvard, 1904; M.D., Johns Hopkins, 1908; D.Sc., Wake Forest, 1943; Int., Johns Hopkins Hosp., 1908-1909; Assoc. Prof. of Path., Columbia, and Pathologist, Presbyterian Hosp., N. Y., 1909-1912; Assoc., Rockefeller Instit., 1912-1913; Assoc. Prof. of Med., Washington Univ. Med. Dept., 1913-1914; Ass't. in Neurol., Queen Square Hosp., London, 1914; Prof. of Therapeutics, Med. Coll. of Va., 1914-1916; Lt. Col. Commanding Base Hosp. 65, A. E. F., 1917-1918; Physician, Duke Hospital, 1930.1946.
OSCAR CARL EDVARD HANSEN-PRU'SS, A.B., M.D., Associate Professor of Medicine in Charge of Clinical Microscopy.
A.B., Universidad Mayor de San Marcos, 1919; Vol. Ass't. in Path., Friedrich Wilhelm Universität, Berlin, 1920-1921; M.D., Johns Hopkins, 1924; Int., Ass't. Res. in Med., and Ass't. Phys., Johns Hopkins Hosp., 1924-1930; Ass't., Instr,, and Assoc. in Medicine, Johns Hopkins Med. Sch., 1925-1930; Associate Physician, Duke Hospital, 1930-.
JEROME SYLVAN HARRIS, A.B., M.D., Assistant Professor of Pcdiatrics and Biochemistry.
A.B., Dartmouth, 1929; M.D., Harvard, 1933; Med. House Officer, House of Good Samaritan, Boston, Oct., 1933-Jan., 1934; Int. in Med., Univ. of Chicago Clinics, 1934 1935; Int., Infants and Children's' Hosp., Boston, 1935.1936; Ass't. Res. and Assistant Pediatrician, Duke Hosp., 1936-1942; Lt. Col., Med. Corps, U. S. Army, 1942-1945; Assistant Pediatrician, Duke Hospital, 1946-.
DERYL HART, A.B., A.M., M.D., Professor of Surgery.
A.B. and A.M., Emory, 1916 and 1917; M.D., Johns Hopkins, 1921; Int. in Surg., Ass't. Res. in Surg. Path., Ass't. Res. and Res. in Surg., and Assoc. Surg., Johns Hopkins Hosp., 1921-1930; Ass't. in Path., Instr., and Assoc. in Surg., Johns Hopkins Med. Sch., 1922-1930; Surgeon, Duke Hospital, 1930-.
JAMES PAISLEY HENDRIX, B.S., M.A., M.D., Associate in Medicine.
B.S., Davidson, 1925; M.A., Davidson, 1926; M.D., Pennsylvania, 1930; Int., Hosp. of Univ. of Pa., 1930-1932; Res. Fellow in Pharm., Pennsylvania, 1932-1935; Instr. in Pharm., 1935-1938; Part-time Staff Phys., Med. and Gastro-Intestinal Clinics, University Hosp., 1935-1938; Assistant Physician, Duke Hospital, 1938-.
WILLIAM HENRY HOLLINSHEAD, B.A., M.S., Ph.D., Associate Professor of Anatomy.
B.A., M.S., and Ph.D., Vanderbilt, 1926, 1927, and 1932; Instr. in Biol., Vanderbilt, 1927-1930; Visiting Assoc. Prof. of Anat., Univ. of Tenn., 1945; 1930-.
CHRISTOPHER JOHNSTON, A.B., M.D., Assistant Professor of Medicine. A.B. and M.D., Johns Hopkins, 1922 and 1926; Int. and Ass't. Res. in Med., Johns Hopkins Hosp., 1926-1928; Ass't. in Med., Johns Hopkins Med. Sch., 1927-1928; Ass't. Res. Phys., Hosp. of Rockefeller Instit., N. Y., 1928-1930; Assistant Physician, Duke Hospital, 1930-.

HELEN LOUISE KAISER, R.P.T.T., Instructor in Physical Therapy, in Charge of Division of Physical Therapy.
R.P.T.T., Harvard, 1921; Ass't. Instr., Harvard Med. Sch. Course for Graduates, 1921-1922; Chief Phys. Therap., Detroit Orthop. Clinic, 1922-1925; Cleveland Clinic Found., 1926, and Mt. Sinai Hosp., 1927-1943; Physical Therapist, Duke Hospital, 1943-.

ANGUS McBRYDE, B.S., M.D., Assistant Professor of Pediatrics.
B.S., Davidson, 1924; M.D., Pennsylvania, 1928; Int. and Res. in Ped., Univ. of Pa. Hosp., 1928-1930; Ass't. Res. in Ped., Johns Hopkins Hosp. and Ass't. in Ped., Johns Hopkins Med. Sch., 1930-1931; Assistant Pediatrician, Duke Hospital, 1931-.
MAUDE McCRACKEN, A.B., M.S., Instructor in Medical Social Service.
A.B., Duke, 1930; M.S., Simmons, 1941; Ass't. in Med. Soc. Serv. and Instructor in Medical Social Service, Duke Hospital Social Service Department, 1941-.
FOREST DRAPER McCREA, B.S., M.S., Ph.D., Associate Professor of Physiology and Pharmacology.
B.S., Purdue, 1918; M.S., Illinois, 1923; Ph.D., Wisconsin, 1927; Instr. in Physiol., Illinois, 1920-1923; Instr. in Physiol., Wisconsin Med. Sch., 1923-1927; Ass't. Prof. of Physiol. and Pharmacol., Georgia Med. Sch., 1927-1929; Sr. Instr. in Physiol., Western Reserve Med. Sch., 1929-1930; 1930-.

[^46]JOSEPH ELDRIDGE MARKEE, B.S., Ph.D., Professor of Anatomy.
B.S. and Ph.D., Chicago, 1925 and 1929; Douglas Smith Fellow in Anat., 1929; Instr. in Anat., Chicago, 1929; Research Fell., Gen. Ed. Bd., Carnegie Lab. of Embry., Balto., 1935-1936; Visiting Prof. of Anat., Univ. of Tenn., 1942; Instr., Ass't. Prof., Assoc. Prof. and Prof. of Anat., Stanford, 1929-1943; 1943-.
DONALD STOVER MARTIN, A.B., M.D., Associate Professor of Bacterology and Associate in Medicine.
A.B., Johns Hopkins, 1925; M.D., Rochester, 1930; Int. in Ped., Strong Mem. Hosp., 1930.1931; Ass't. in Physiol. and Ass't. in Bact., Rochester Med. Sch., 1926.1927 and 1931-1932; Associate Bacteriologist, Duke Hospital, 1932-.
RUTH CAMPBELL MARTIN, B.A., M.D., Associate in Anesthesiology, in Charge of Division of Anesthesiology.
B.A., Texas Christian, 1937; M.D., Washington, 1941; Int., Rotat., Deaconness Hosp., St. Louis, Mo., 1941-1942; Ass't. Kes., Res. and Instr. in the Dept. of Anes., Billings Hosp., 1942-1944; Anesthetist, Duke Hospital, 1944-.
ELIJAH EUGENE MENEFEE, JR., B.S., M.D., Associate in Medicine.
B.S. and M.D., Duke, 1936; Int., N. Y. State Sanatorium, Raybrook, July 1-Aug. 31, 1936; Int. in Med., Duke Hospital, 1936-1937; Research Fellow in Med. and Bact., Duke Med. Sch., 1937-1938; Res. in Tbc., Bellevue Hosp., New York City, Jan. 1-Dec. 31, 1939; Assistant Physician, Duke Hospital, 1940-.
WILLIAM McNEAL NICHOLSON, A.B., M.D., Assistant Professor of Medicine.
A.B., Duke, 1927 ; M.D., Johns Hopkins, 1931; Int. in Med., Johns Hopkins Hosp., 1931-32; Ass't. in Path. and in Med., Johns Hopkins Med. Sch., 1932-1935; Assistant Physician, Duke Hospital, 1935-.
GUY LEARY ODOM, M.D., Associate in Neurosurgery.
M.D., Tulane, 1933; Int., Rotat., East Louisiana State Hosp., 193+-1937; Res. Fellow, Path. Fellow, Int. and Res. in Neuro. and Neurosurg., Montreal Neurol. Instit., 1937-1942; Clin. Instr. in Neurosurg., L. S. U. Med.' Sch., 19+2-1943; Associate Neurosurgeon, Duke Hospital, 1943-.
EDWARD STEWART ORGAIN, M.D., Assistant Professor of Medicine.
M.D., Virginia, 1930; Int., Ass't. Res. and Res. in Mled., Univ. Hosp., Cleveland, 1930-1933; Res. Fellow in Med., assigned to Cardiology, Mass. Gen'l. Hosp., 1933-1934; Assistant Physician, Duke Hospital, 193--.
WALTER SCOTT PERSONS, A.B., Instructor in Physical Education.
RICHARD BEVERLY RANEY, A.B., M.D., Associate in Orthopaedics.
A.B., North Caroliná, 1926; M.D., Harvard, 1930; Int. in Surg., Surg. Pathologist, Ass't. Res. and Assoc. Res. in Surg., Strong Mem. Hosp., 1930-1934; Res. in Orth. and Assistant Orthopaedist, Duke Hospital, 1934-.
ROBERT JAMES REEVES, A.B., M.D., Clinical Professor of Radiology.
A.B. and M.D., Baylor, 1920 and 1924; Int., Baylor Hosp., 1924-1925; Res. in Roentgenol., Mass. Gen'l. Hosp., 1925-1926; Ass't. Attending Phys. in Roent. Ray Dep't., Presbyterian Hosp., and Med Center, N. Y., 1926-1930; Instr. in Med., Columbia Med. Sch., 1925-1930; Radiologist, Duke Hospital, 1930-.
JULIAN MEADE RUFFIN, A.B., M.A., M.D., Associate Professor of Medicine.
A.B., M.A., and M.D., Virginia, 1921, 1922, and 1926; Int. and Res., Bellevue Hosp., N. Y., 1926-1928; Instr. in Phys. Diag., George Washington Med. Sch., 1928-1930; Associate Physician, Duke Hospital, 1930-.
HARVEY GRANT TAYLOR, A.B., A.M., M.D., Assistant Professor of Pediatrics.
A.B., San Jose State, 1928; A.M., Stanford, 1929; M.D., Duke, 1940; Int. in Ped., Duke Hosp., 1940-1941; Ass't. Res. and Res. in Ped., Alfred I. duPont Instit., Nemours Found., Wilmington, Del., 1941-1943; Lt. Col., Med. Corps, U. S. Army, 1943-1946; Assistant Pediatrician, Duke Hospital, 1945-.
HAYWOOD MAURICE TAYLOR, B.S., M.S., Ph.D., Associate Professor of Biochemistry and Toxicology.
P.S., M.S., and Ph.D., North Carolina, 1920, 1921, and 1924; Instr. in Chem. and Pharmaceut. Chem., North Carolina, 1920-1925; Research Chemist, E. R. Squibb \& Sons, and Fisk Rubber Co., 1925-1928; Instr. in Ophthalmol., and Chemist to Wilmer Institute, Johns Hopkins Hosp., 1928-1930; Visiting Fellow in Forensic Med., New York Univ., 1934; Associate Biochemist and Toxicologist, Duke Hospital, 1930-.

## THE SCHOOL OF NURSING

## GENERAL INFORMATION

The School of Nursing of Duke University was established in 1931 in connection with the School of Medicine of the University and Duke Hospital through the munificent gift of the late James B. Duke.

The plan of the School is to develop the ability of the nurse to make a maximum contribution to social welfare and progress, and to live an individually satisfying life, through the medium of the service which she renders to individuals, families, and communities in caring for the sick, in prevention of disease, and in conservation of health.

The government of the School is administered by the Curriculum Committee of the School of Nursing, under the general direction of the Executive Committee of the Schools of Nursing and Medicine.

## FACILITIES OF THE HOSPITAL

Duke Hospital has every modern convenience for the diagnosis, proper care, welfare, and comfort of patients, both private and charity, white and colored, whether they come from Durham or from a distance. It has 604 beds, including 50 bassinets for newly born infants. Medicine, including dermatology and neurology, has 75 ward beds; surgery, including urology, otolaryngology, ophthalmology, and orthopaedics, 136 ward beds; obstetrics, including gynecology, 56, and 50 bassinets; neuropsychiatry, 23 ; and pediatrics, 52 . There are 212 private rooms and semiprivate cubicles, 7 air-conditioned operating rooms, and 4 obstetric delivery rooms. Offices and examining rooms for the members of the Medical Faculty are located in the Hospital. The Hospital has been approved for internships and residencies by the Council on Medical Education and Hospitals of the American Medical Association.

Through the generosity of Dr. Robert S. Carroll, the Highland Hospital, Asheville, North Carolina, has been presented to the University to form a therapeutic division of the Department of Psychiatry. The School of Nursing at Highland Hospital offers training for those who wish to prepare themselves for psychiatric nursing. Those interested should apply to Dr. B. T. Bennett, Highland Hospital, Asheville, North Carolina.

## FACILITIES FOR INSTRUCTION

The facilities for instruction include the undergraduate colleges and graduate schools of the University, the School of Medicine, and Duke Hospital.

## LIBRARIES

The reference library of books and periodicals of special interest to students majoring in nursing is located in the Nurses' Home Libraries. Students may use the general libraries on the East and West campuses and the Medical School Library.

## RESIDENCES

Students are housed in the fireproof residences located near the Hospital. Rooms are adequately equipped with blankets and linen, making further provision by the student unnecessary.

## HEALTH REGULATIONS AND PHYSICAL EDUCATION

The School has general supervision of the student's health. All physical defects, such as defective vision, dental needs, etc., must be corrected before admission to the School. The student must have been immunized against typhoid fever and vaccinated against smallpox during the current year. All students are required to pass a physical examination before admission to the School of Nursing and at intervals thereafter, a final examination being given at the end of the course. Students whose condition needs further observation may be admitted tentatively, but must cancel their application if later findings prove them physically unfit for nursing. Students about whom it is decided that tonsillectomy or other surgery was indicated before admission to the School, or students under care of a private physician for some minor complaint which does not interfere with the practice of nursing but requires hospitalization and surgery, may be asked to pay for this care by the Hospital.

Students are allowed two weeks' sick leave during the three-year course.

## ACTIVITIES OFFERED

Autumn Quarter (October to December) : Swimming, horseback riding. (Required for first-year students.)

## REQUIREMENTS FOR ADMISSION AND SELECTION OF MATRICULANTS

As the profession of nursing requires women with high sense of integrity and responsibility, with culture and intelligence whose predominant interest is in service to the public, the Admissions Committee of the School considers carefully all credentials of applicants before selection of matriculants is made.

All applications for admission to the School should be made to the Dean of the School of Nursing, who will furnish upon request the necessary forms which must be filed with the School before decision is made regarding the acceptability of the candidate.

A personal interview is required either at the School by appointment with a member of the faculty or with an alumna living in the vicinity of the applicant, for which arrangements will be made.

Applicants should be between eighteen and thirty years of age. Young women who are $171 / 2$ years of age may be considered for admission if they show maturity and submit other credentials which would indicate superior qualifications for nursing. Exceptions for those over thirty may be made also, if the candidate shows unusual abilities. Married students are not admitted to the School, and students are not permitted to marry while they are in the School.

Applicants must submit evidence of personal suitability for nursing in
relation to their physical health, emotional stability and general qualities of personality, culture and maturity.

Emphasis in selection of matriculants is placed upon the educational and scholastic qualifications of applicants. The minimum requirement is satisfactory graduation from an accredited high school or recognized preparatory school in which the following units of study have been taken:


16 units
At least one year of college work is required for admission. Chemistry and biology or zoology must be included in the college work. Classes are admitted only in October of each year.

Preference in admission, however, is given to women who have had the opportunity of advanced study and experience, provided they meet all other requirements satisfactorily. As a result of this selective process, many students have received their bachelor's degree before admission to the School of Nursing and most of them have had one or more years' study beyond high school. Many have had valuable experiences as teachers, librarians, social workers and secretaries.

Because of the many applications to the School, it is important that those who desire admission submit their credentials promptly to

Dean of the School of Nursing,
Duke University School of Nursing,
Durham, N. C.

## REQUEST FOR APPLICATIONS

When requesting application blanks state the number of years you have attended college and also list the subjects satisfactorily completed.

## REQUIREMENTS FOR THE B.S. IN NURSING

Upon completion of 60 semester hours of acceptable college work with an average of at least "C," a student is eligible for the B.S. in Nursing. Part of this academic requirement may be completed after the nursing course, if so desired.

## SUGGESTED SUBJECTS FOR B.S. DEGREE

| English | Psychology |
| :--- | :--- |
| Mathematics | Chemistry |
| History | Biology or zoology |
| Sociology | *Foreign language |

[^47]
## ADVANCED STANDING

Graduates of accredited colleges, who maintain a "C" rating and snow superior ability in nursing in the first two years in the School of Nursing, may complete their nursing course in thirty to thirty-three montlis instead of thirty-six.

## REQUIREMENTS OF SCHOLARSHIP FOR PROMOTION AND GRADUATION

Students are graded in their studies, which include all classes and nursing practice, on a basis of weighted quality points with an average of two quality points required for promotion without condition and for graduation. A diploma of the School is issued upon satisfactory completion of all requirements.

The following grading system has been established:


The scholastic standing of the student is based upon the general character of her nursing practice as well as the results of written and oral examinations, case studies, and practical tests. Reports of nursing practice are recorded regularly by the departments. Students who have an average of 90 on Theory and Practice are placed on the Dean's List.

A major warning is given to a student if her work is not of at least a satisfactory quality or "C" rating, which is required for promotion without condition.

A grade of at least "C" is required in Nursing Arts I and II. A grade of "D" in nursing practice in any major field of nursing places a student on major warning.

In case a student fails in one or not more than two subjects, she may be allowed to repeat these courses provided her record in other work is sufficiently satisfactory. A charge of $\$ 1.00$ is made for each repeat examination. If it is necessary to repeat a course, a charge of $\$ 5.00$ will be made; if a student should require special tutoring there will be a charge not to exceed $\$ 1.00$ an hour. In order to readjust her schedule to meet such difficulties, it may be necessary to increase the length of her course.

After graduation one transcript of the School record will be granted each nurse upon request without charge. Additional copies will be sent upon payment of a fee of $\$ 1.00$. Transcripts will not be issued except upon personal request of the graduate.

| FEES AND EXPENSES |  |  |  |
| :---: | :---: | :---: | :---: |
|  | First Year | Second Year | Third Year |
| Tuition | . $\$ 100.00$ | \$100.00 | \$100.00 |
| Books | 40.00 | 10.00 | 10.00 |
| Pre-entrance tests | 5.00 |  |  |
| Publications | 10.00 | 10.00 | 10.00 |
| Graduation |  |  | 3.00 |
| Diploma |  |  | 5.00 |
| Degree |  |  | 5.00 |
| Cap and Gown Rental |  |  | 1.25 |
| Room Key Deposit | 1.00 |  |  |
|  | \$156.00 | \$120.00 | \$134.25 |

The fee for pre-entrance tests and health examination is payable at time testing is done. Checks should be made payable to Duke University.

No student is permitted to attend classes until she has complied with all regulations concerning registration and payment of bills for the term.

## LOAN FUND AND SCHOLARSHIP

Through the generosity of the Kellogg Foundation, loan funds sufficient to cover tuition costs are available to students who demonstrate a real need and who are qualified. There are also a limited number of tuition scholarships for exceptionally qualified students.

## READMISSION

Students who are absent for more than one month on account of illness or have leave of absence may be readmitted to the same or a succeeding class at the discretion of the Committee.

## VACATIONS

Each year is divided into four quarters of three months each. Firstyear students have vacations of two weeks at Christmas and two weeks during the summer. Senior students have vacations of two weeks; Junior students, a month.

## LEAVE OF ABSENCE

Students are not expected to leave the School because of family or other personal reasons. Absence from the School is granted only in extreme cases. If a student is obliged to be away for a period exceeding four weeks, the Dean of the School of Nursing will determine the date of her return and the question of resuming her place in her original class.

## THE DUKE UNIVERSITY SCHOOL OF NURSING ALUMNAE ASSOCIATION

The Duke University School of Nursing Alumnae Association was formed for the purpose of rendering mutual help and improvement in professional work, and for the promotion of good fellowship among the graduates of the School.

The Alumnae Association co-operates with the North Carolina State Nurses' Association and the American Nurses' Association in working for the professional and educational advancement of nursing.

An endowment fund has been established by the Association. Each alumna is asked to contribute $\$ 10$ to this fund within two years following her graduation. Gifts from interested friends have also helped to increase the fund during the past year.

Alumnae Notes, the Association's publication, has become a quarterly bulletin.

## COURSES OF INSTRUCTION

Anatomy and Physiology.-Basic facts and principles concerning the structure and activities of the human body, and their application to nursing situations in health and disease. Demonstrations, laboratory work and discussions. Dr. Markee, Dr. Hollinshead, Miss Poole

Bacteriology.-The relation of pathological organisms to the cause, prevention, spread and control of communicable diseases. Lectures and laboratory work.

Dr. Conant
Chemistry.-Emphasis on the physiological and pathological aspects of chemistry as applied to nursing. Lectures are supplemented by laboratory experiments and discussions of general, organic, and physiological chemistry.

Dr. Taylor, Mrs. Atwell
Communicable Disease.-A study of the contagious diseases in detail with treatment and nursing care of each.

Physicians, Miss Warren
Diet Therapy.-Principles underlying nutrition in health and disease.
Mrs. Elsie Martin
Ear, Nose, Throat, and Dentistry.-Specialized surgical procedures pertinent to these areas with nursing care related to each.

Dr. Atwood, Dr. Eagle, Mrs. Hampton
Eye.-The treatment and surgery specialized to the eye and nursing procedures special for each.

Dr. Anderson, Mrs. Hampton
First Aid.-Presentation of the general factors essential in meeting emergency needs.

Red Cross Instructor
Gynecology.-Presentation of the anatomy and physiology of the female reproductive organs with reference to the major diseases and abnormalities of the organs. Essential nursing care is stressed.

Dr. Carter, Associates, Miss Theresa Horton
History of Nursing.-Survey of the development and trends leading up to the present concept of nursing, stressing the historical element in the profession and present organizations.

Mrs. Atwell
Medicine I.-The education of a nurse in the potential knowledge of disease processes which are treated medically; and a training in the actual nursing care of the patient.

Physicians, Miss Warren
Medicine II.-Advanced medical conditions inclusive of dermatology and syphilology emphasizing clinical and nursing aspects.

Physicians, Miss Warren
Nursing Arts I.-Introduction to nursing and hospital economics inclusive of introductory Professional Adjustments and Health Education. This course aims to develop in a high degree professional atmosphere and dignity, with well-rounded physical and mental health.

Miss Pinkerton, Miss Burnham, Assistants
Nursing Arts II.-Principles of nursing procedures, including bandaging and some of the hospital routines with supervision in classroom and the wards. Miss Burnham and Assistants
Nursing Arts III.-Demonstrations and practices in the classroom of advanced nursing procedures with supervised experience on the wards.

Miss Burnham and Assistants

Nutrition and Cookery.-An introduction to the principles and methods of the preparation of foods. Mrs. Elsie Martin
Obstetrics.-A course dealing with the physiology of normal pregnancy, labor, and puerperium; the more common abnormalities, and the care of the newborn. Principles of obstetrical nursing care are emphasized. Lecture and demonstrations.

Dr. Baýard Carter, Miss Horton, Miss Lawrence
Operating Room Technique and Anesthesia.-Lectures and demonstrations stressing the physical operating room plant in its relation to preparation and sterilization of supplies and use of equipment in operative procedures, and the relation of anesthesia with these set-ups. Miss Batchelder and Dr. Martin

Orthopaedics.-A course given of surgery and treatment of bone maladies including physical therapy and its relation to these.

Dr. Baker, Mrs. Hampton, Miss Kaiser
Pediatrics.-Emphasis on the causes, treatments, and preventive measures in childhood diseases. The importance of nursing care is stressed.

Physicians, Miss Sherwood
Elementary Pharmacology.-A study of the nurses' responsibilities in the understanding of the preparation and computation of dosages and common modes of administration of drugs.

Miss Poole
Advanced Pharmacology.-An introduction to drugs in relation to their use in the treatment of disease, with emphasis on the responsibility of the nurse in their administration.

Miss Poole
Physical Education.-For physical development and maintenance-a relaxation period of swimming and callisthenics for the improvement of posture.

Mr. Persons
Elementary Psychology.-Fundamental principles underlying human conduct.

Miss Nahm
Applied Psychology.-The art of getting along with patients and coworkers, applying the basic psychological principles.

To Be Appointed
Professional Adjustments II.-A survey of the nursing field with considerations of the special qualification and preparation needed for various specialties; inclusive of a study for successful management of a hospital unit.

Miss Pinkerton and Specialists
Psychiatric Nursing.-An introduction to causes, treatments, and nursing care measures used in the care of the mentally ill. Lectures, presentation of cases, demonstrations of procedures, lantern slides.

To Be Appoñted
Introduction to Public Health Nursing.-These lectures are designed to give an over-all view of the field of Public Health with pertinent relations to public health nursing-its development, influence, the present-day programs, and family health work.

Miss Ruth Hay, Miss Margaret Blee
Sociology of Nursing.-Sociology factors in the problems of individuals as related to the hospital and the community life from a medical-social aspect.

Mayde McCracken and Lecturer
Surgery I.-General surgical conditions and operations with emphasis on nursing care including the recognition of signs and symptoms of complications which might arise post-operatively.

Physichans, Mrs. Hampton
Urology.-Specialized surgery involving the excretory tract in female and gento-urinary in male and related nursing procedures.

Dr. Alyea, Mrs. Hamptor
PRE-CLINICAL AND CLINICAL PROGRAMS—1946-47

| $\begin{aligned} & \text { YEAR: } \\ & \text { 1946-1949 } \end{aligned}$ | FIRST YEAR |  |  |  | SECOND YEAR CJASS |  |  |  | THIRD YEAR <br> OF: 1949 ENTERED: October 3, 1946 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month | Oct.. Nov., <br> Dec. | $\begin{aligned} & \text { Jan., Feb., } \\ & \text { Mar. } \end{aligned}$ | $\begin{gathered} \text { April, May, } \\ \text { June } \end{gathered}$ | July. Aug., Sept. | Oct., Nov., | $\begin{aligned} & \text { Jan., Feb., } \\ & \text { Mar. } \end{aligned}$ | $\begin{gathered} \text { April, May, } \\ \text { June } \end{gathered}$ | July, Aug., Sept. | Oct., Nov., Dec. | $\begin{aligned} & \text { Jan. Feb., } \end{aligned}$ Mar. | $\begin{gathered} \text { April, May, } \\ \text { June } \end{gathered}$ | Julv, Aug., Sept. |
| Term: 11 weeks | 1st. | 2nd. | 3rd. | 4th. | 5th. | 6 th. | 7th. | 8th. | 9th. | 10th. | 11th. | 12th. |
| Biological and Sciences | $\quad$ Hrs. Anatomy and Physiology 77 Chemistry 55 | $\begin{aligned} & \text { Hrs. } \\ & \text { Anatomy } \\ & \text { and } \\ & \text { Physiology } \\ & 66 \\ & \text { Bacteriology } \\ & 55 \end{aligned}$ | Hrs. | Hrs. | Hrs. | Hrs. | Hrs. | Hrs. | Hrs. | Hrs. | Hrs. | Hrs. |
| Social Sciences | Elcmentary <br> Psychology <br> 22 |  |  |  | Applied <br> Psychology <br> 22 | $\begin{aligned} & \text { Sociology } \\ & \text { on } \end{aligned}$ |  |  |  | Psychiatry <br> 45. <br> Service <br> Service 22 |  |  |
| Nursing and Allied Arts | History of <br> Nursing 22 <br> Nursing <br> Physical <br> 22 <br> Education | Nursing <br> Arts 66 <br> Elementary <br> Pharma- <br> cology 33 <br> Nutrition <br> and Cookery <br> 33 <br> Physical <br> Education <br> 22 | Nursing Arts 66 <br> Advanced <br> Pharma- <br> cology 33 <br> Therapy 22 <br> ${ }_{22}$ |  | Medicine I 33 Surgery 33 0. .T.eh. and Anes. 15 First Aid 22 | $\begin{aligned} & \hline \text { Medicine II } \\ & 33 \\ & \text { Orthopaedics } \\ & 33 \\ & \text { Ear, Nose } \\ & \text { and Throat } \\ & \text { (inc. Dent.) } \\ & 25 \end{aligned}$ | Comm. <br> Disease 22 <br> Urology 22 <br> Eye 22 <br> 33 <br> ${ }^{\text {Gynecology }}$ |  | Obstetrics <br> Pediatrics <br> 45 | - |  | Totals |
| Hrs. of Class | 286 | 275 | 143 |  | 125 | 113 | 99 |  | 90 | 67 | 55 | 1250 |
| Hrs. of Ward Practice |  | 165 | 385 | 528 | 403 | 415 | 429 | 528 | 438 | 461 | 473 |  |
| Hrs. per Week | 26 | 25 | 13 |  | $111 / 2$ | 10 | 9 |  | 8 | 6 | 5 |  |


| School of Nursing |  |
| :---: | :---: |
| Clinical Experien Six |  |
| Medical Wards | months |
| Surgical Wards | months |
| Diet Kitchen | month |
| Gynecological Wards | month |
| Operating Department | months |
| Out-Patient Department | month |
| Private Wards | months |
| Obstetric Department | months |
| Pediatric Department | 3 months |
| Milk Laboratory | $1 / 4$ month |
| Psychiatry | 1 month |
| Electives | month |
| Unassigned | month |
| Total | .271/4 months |

## SCHOOL OF NURSING STUDENTS

## SENIOR STUDENTS

Name and Preparation Home Address Alexander, Henry Quincy Pineville, N. C.
Mitehell Collcge.
Althauser, Ben Eva Fort Lauderdale, Fla. Pre-Nursing Course, Duke University.
Armbrister, Elizabeth A. Bluefield, W. Va. Pre-Nursing Course, Duke University.
Beasley, Eleanor Louisburg, N. C. Louisburg College; Brevard College.
Berry, Jean Mills Durham, N. C.
Pre-Nursing Course, Duke University.
Blackwell, Isabel Marion, S. C. Limestone College.
Bowden, Mary Ellen Fitzgerald, Ga. Mercer University Pre-Nursing Course, Duke University.
Brisson, Mittie Jean Lumberton, N. C.
Mars Hill Juniar College Pre-Nursing Course, Duke University.
Campbell, Barbara Ann Gainesville, Fla. Pre-Nursing Course, Duke University.
Champion, Elizabeth L Kannapolis, N. C.
Pre-Nursing Course, Duke University.
Clegg, Elizabeth Durham, N. C. Duke University.
Edens, Doris A Rowland, N. C. Appalachian State Teachers College; Pre-Nursing Course, Duke University.
Fleming, Ilah Gainesville, Fla. University of Florida, Florida State College for Women.
Garrett, Emily L Lancaster, S. C. Winthrop College; Pre-Nursing Course, Duke University.
Gibson, Patricia Ann Hampton, Va. Farmzille State Teachers College.
Giles, Dorothy Nell Huntsville, Ala. Pre-Nursing Course, Duke University.
Goff, Mary Jean Fort Benning, Ga.
Haigh, Joanne Daytona Beach, Fla. Florida State College for Women;Pre-Nursing Course, Duke University.
Harris, Margaret Ray Durham, N. C. Pre-Nursing Course, Duke University.
Harrison, Betty Jo. Georgetown, Ky. Georgetou"n College.
Johnson, Betsy Ross Clayton, N. C. Pre-Nursing Course, Duke University.

Peterson, Barbara Elizabeth. Ann Arbor, Mich. Pre-Nursing Course, Duke University.
Pike, Rubilee Columbia, S. C. Unizersity of South Carolina; Pre-Nursing Course, Duke University.
Pritchett, Sarah Scott Olanta, S. C. Winthrop College.
Roller, Jean. Roanoke, Va. State Teachers College;
Pre-Nursing Course, Duke University.
Routledge, Sarah Elizabeth Rome, Ga. Alabama Polytechnic Institute; Prc-Nurring Course, Duke University.
Seay, Margaret ..... Waldo, Fla.
Florida State College for Women.
Short, Zelda Marie Bluefield, W. Va. Blucfield College; Pre-Nursing Course, Duke University.
Name and Preparation Home Address
Smith, Edith E. Louisville, Ky.
Franklin College of Indiana,Pre-Nursing Course, Duke University.
Smith, Margaret Louise Fremont, N. C.
Pre-Nursing Course, Duke University.
Snyder, Cora Crawford Shepherdstown, W. Va.
Duke University;Pre-Nursing Course, Duke University.
Strother, Wincey Irene High Point, N. C.High Point College.
Swartz, Betty Jane York, Pa.
York Junior College.
Thomas, Wilma Anne York, S. C.Appalachian State Teachers College.
Walker, Mary Clair Winston-Salem, N. C.
Woman's College, University of North Carolina; Pre-Nursing Course, Duke University.
Welsh, Sarah Ruth Lumberton, N. C.Pre-Nursing Gourse, Duke University.
Westman, Dorothy Buffalo, N. Y.
Pre-Nursing Course, Duke University.
Williams, Mary Elizabeth New Bern, N. C.
Woman's College, University of North Carolina.
JUNIOR STUDENTS
Bailey, Lucille Watson Washington, D. C. Pre-Nursing Course, Duke University.
Batten, Betty Jo. Welch, W. Va. West Virginia University.Bingham, Ruby Jewel.............................................. Meadowview, Va.Pre-Nursing Course, Duke University.Bishop, Martha Louise....................................................................... Ala.University of Alabama.
Bispham, Betty Ann Bradenton, Fla.Pre-Nursing Course, Duke University.
Blaylock, Doris Eileen Charleston, S. C. Pre-Nursing Course, Duke University.
Boring, Barbara Adair Wildwood, Fla. Florida State College for Women.
Bouton, Joanne Smethport, Pa . Pre-Nursing Course, Duke University.
Boynton, Sarah Ross Havana, Fla. Florida State College for Women.
Brabham, Ann Mildred Winnsboro, S. C. Wintirop. College; Pre-Nursing Course, Duke University.
Braddock, Nina Marie Winston-Salem, N. C. Pre-Nursing Course, Duke University.
Bradsher, Frances Elizabeth Salisbury, N. C. Catawba College.
Bufkin, Mattee Bullard Leland, Miss. Mississippi State College for Women; Pre-Nursing Course, Duke University.
Name and Preparation Home Address
Bundy, Jeanne Petteway Greenville, N. C.
Pre-Nursing Course, Duke University.
Burrow, Betty Belle Bristol, Tenn Pre-Nursing Course, Duke University.
Christoph, Carolyn Edith. Washington, D. C. Pre-Nursing Course, Duke University.
Cline, Mary Laura Concord, N. C.
Woman's College, University of North Carolina; Pre-Nursing Course, Duke University.
Compton, Anna Belle Arlington, Va. George Washington University.
Conroy, Patricia Ann. ..... Ozone Park, N. Y. Pre-Nursing Course, Duke University.
Cox, Frances Jean. West End, N. C. Pre-Nursing Course, Duke University.
Craig, Eleanor Jacksonville, Fla. The Woman's College, Duke University.
Crovatt, Dorothy Belle Jacksonville, Fla. Pre-Nursing Course, Duke University.
Dalton, Eva Virginia Tampa, Fla.
Pre-Nursing Course, Duke University.
Daves, Annie Frances Kannapolis, N. C. Montreat College; Pre-Nursing Course, Duke University.
Davis, Annie Laura Todd, N. C. Appalachian State Teachers College: Pre-Nursing Course, Duke University.
Dawson, Deborah. Washington, D. C. Pre-Nursing Course, Duke University.
Diggs, Gerry Annette. Saltville, Va. Emory and Henry College; Pre-Nursing Course, Duke University.
Elliott, Mary Virginia Lincolnton, N. C.
The Woman's College, Duke University; Pre-Nursing Course, Duke University.
Fairey, Margaret Elizabeth Johnston, S. C. Winthrop College.
Ford, Alice Evelyn Fairmont, W. Va. Pre-Nursing Course, Duke University.
Gaines, Mary Kathryn Winston-Salem, N. C. Woman's College, University of North Carolina.
Giles, Frances Ann. ..... Sparta, Ga. Georgia State College for Women; Pre-Nursing Course, Duke University.
Gonzalez, Elpidia Edinburg, Texas
Edinburg Junior College; Pre-Nursing Course, Duke University.
Graveley, Mary Rosalie Orlando, Fla. Florida State College for Women.
Gregory, Ada Virginia Havana, Fla. Florida State College for Women.
Hall, Dorothy Emily Wilmington, N. C. Pre-Nursing Course, Duke University.
Nume and Preparation Home Address
Harris, Dorothy Laurel Hill, N. C.Pre-Nursing Course, Duke University.
Harry, Margaret Bloomfield Warm Springs, Ga. Gcorgia State College for Women; Pre-Nursing Course, Duke Úniversity.
Hart, Mary Catherine Tallahassee, Fla. Florida State College for Women.
Hatcher, Audrey Virginia Roanoke, Va. Madison Collegc.
Herring, Clyde Fennell Fayetteville, N. C. Flora Macdonald College.
Howell, Margaret Elaine Lillington, N. C. Woman's College, University of North Carolina; Pre-Nursing Course, Duke University.
Hunter, Caroline Gibbes Columbia, S. C. Unizersity of South Carolina; Pre-Nursing Course, Duke University.
James, Mary Jordan. Southern Pines, N. C.
The Woman's Collcge, Duke University; Pre-Nursing Course, Duke University.
Knight, Doris Virginia Rock Hill, S. C. Winthrop College.
Tallahassee, Fla. Kurz, Flora Mae Florida State College for Women.
Leach, Mary Elizabeth Kinston, N. C. Flora Macdonald College; Pre-Nursing Course, Duke University.
Long, Jeanne Anne. Gettysburg, Pa. Pre-Nursing Course, Duke University.
McKinney, Doris Marie High Point, N. C. Pre-Nursing Course, Duke University.
Moore, Janice Haddonfield, N. J.
Moore, Mary Frances Kannapolis, N. C.
Limestone College; Prc-Nursing Course, Duke University.
Norris, Hannah Matilda Columbia, N. C. Carolina Teachers College; Pre-Nursing Course, Duke University.
Palmer, Rachel Eleanor Greenville, S. C.
Woman's College of Furman University.
Parmer, Minnie Florine Chipley, Fla. Pre-Nursing Course, Duke University.
Pegram, Ruth Ola Winston-Salem, N. C. Louisbarg College; Pre-Nursing Course, Duke University.
Petrea, Margaret Lyerly Salisbury, N. C.Lenoir-Rhyne College.
Proctor, Sarah Lucile Tallahassee, Fla.
Florida State College for Women.
Pugh, Frances Hope Franklinville, N. C. Prc-Nursing Course, Duke University.
Ray, Nancy Launa. Rocky Mount, N. C.
Pre-Nursing Course, Duke University.
Name and PreparationHome Address
Rearden, Helen HenriettaArlington, V'a.Rice, Dorothy HelenDurham, N. C.Pre-Nursing Course, Duke University.
Roy, Gloria Carmen Averett College; Mary Washington College.
Sanders, DeLane Cecielle Clover, S. C. Limestone College; Pre-Nursing Course, Duke University.
Schumm, Cora Belle Greensboro, N. C. Pre-Nursing Course, Duke University.
Slick, Jane Lenore. ..... Osterburg, Pa . Gettysburg Coliege.
Smith, Emily Josephine Statesville, N. C. Kent State Unizersity; Guilford College.
Smith, Ruth Beatrice. Laurinburg, N. C. Pre-Nursing Course, Duke Unizersity.
Smith, Shirley Mae Wilmington, N. C.Louisburg College.
Smoot, Julia Ann Dillon, S. C.
Pre-Nursing Course, Duke University.
Swartz, Gene Carolyn Roanoke, Va.
Pre-Nursing Course, Duke University.
Thompson, Margaret White. Bristol, Va. Virginia Intermont College; Pre-Nursing Course, Duke University.
Timmons, Miriam Augusta, Ga. Georgia State College for Women; Pre-Nursing Course, Duke University.
Trent, Loa Jean Winston-Salem, N. C. Hockaday. Junior College; Pre-Nursing Course, Duke University.
Wall, Rachel Louise Durham, N. C. Peace College; Pre-Nursing Course, Duke University.
Weeks, Flora Mary. Pahokee, Fla. Pre-Nursing Course, Duke University.
White, W anda Durham, N. C. The Woman's College, Duke Unizersity.
Wiland, Elaine Margaret Lewistown, Pa . The Woman's College, Duke Unizersity.
Williams, Anna Beth Ruffin, S. C. Coker College;
Winthrop College.
Winters, Virginia Lewis Charlotte, N. C. Pre-Nursing Course, Duke Unizersity.
Young, Beverly Ballenger Orlando, Fla. Limestone College; Pre-Nursing Course, Duke University.
FRESHMAN STUDENTS
Able, Mattie Katherine ..... Saluda, S. C. Anderson College.
Adams, Dorothy W. Raleigh, N. C. Peace Junior College.
Name and Preparation Home Address
Alderman, Rebecca Lorena Norfolk, Va.
Madison College.
Bain, Doris Furgurson Greensboro, N. C.
Greensboro College; Woman's College, University of North Carolina.
Banner, Ernestine June. Blowing Rock, N. C.Appalachian State Teachers College.
Blake, Miriam Alice Washington, D. C. George Washington University.
Bodkin, Betty Jean Spring Garden, Va. Glenville State College.
Bonura, Jacqueline Fort Lauderdale, Fla. University of Miami.
Brown, Mary Lou. Forest City, N. C. Winthrop College.
Bruton, Annie Ruth. Thomasville, N. C. Woman's College, University of North Carolina.
Carriker, Dorothy Jane Concord, N. C.Catazuba College.
Cooper, Anna Jane. Mt. Williams, Va. Roanoke College; George Washington Unirersity.
Cooper, Lessie Graham Anderson, S. C. Florida State College for Women.
DeLoach, Eva Elizabeth Savannah, Ga. Georgia Teachers College.
Douglas, Ruth Etta. Statesville, N. C. Lenior-Rhyne College.
Duffy, Jean Frances Daleville, Va. Bridgewater College.
Forest City, N. C. Duncan, Bettie Jane Woman's College, University of North Carolina.
Farlow, Daisy Randleman, N. C. Pfciffer Junior College.
Freeman, Chispah Marguerite Liberty, S. C. Winthrop College.
Freeman, Jimmie Ruth. ..... Crossville, Ala.Jacksonville State Teachers College.
Goff, Marjorie Pinemount, Fla. Florida State College for Women.
Grabill, Norma June Woodstock, Va. Madison College.
Greene, Merlene Virginia Pompano, Fla. University of Miami.
Greer, Dorothy Sue. Anderson, S. C.Anderson Junior College.
Hedrick, Betty Sue. Lexington, N. C. Catazuba College.
Washington, D. C. Herrick, Joyce Anne University of Michigan.
Hodges, Mary Lee. Belhaven, N. C. Louisburg College.
Name and Preparation Home Address
Howser, Celeste Bramwell Julian, N. C.Woman's College, University of North Carolina.
Hunnings, Shirley Mason Charlotte, N. CQueens College.
Hunter, Nancy Caroline Raleigh, N. C. Mars Hill College.
Johnson, Bert Claire Lake Alfred, Fla.Berca College.
Kehoe, Clara Webster ..... Bealeton, Va.Corpus Christi Junior College.
Kerr, Mary Carol Westerville, Ohio Otterbein College.
Knotts, Mary Elles Hamlet, N. C. East Carolina Teachers College.
Lange, Audrey Joan Morristown, N. J. New Jersey College for Women.
Lineberger, Ethel Catawba, S. C. Winthrop Collige.
Lochas, Maria Chris Pensacola, Fla. Florida State College for Women.
Long, Wilmpje Ann Arlington, Va. State Teachers College.
Lupton, Carrie Baggett Leasburg, N. C.Greensboro College.
Luther, Dorothy Carolyn Miami, Fla.Unicersity of Miami.
McCartney, Lois Josephine. East Lansing, Mich. Michigan State College.
McDonald, Agnes Carlotta Erwin, N. C. Appalachian State Teachers College.
McManaway, Gladys Portsmouth, Va. Mary Baldwin College.
McManus, Martha Red Springs, N. C. Queens College.
McSwain, Rachel Ann Evanston, Ill.Duke University.
Manley, Clara J. Huntington, W. Va. Huntington College.
Mason, Ann. ..... Norfolk, Va. Gulf Park College.
Morgan, Ann Lakeland, Fla.Florida Southern College.
Newman, Sallie Gayle Clinton, N. C. Flora Macdonald College; Atlantic Christian College.
Patt, Dolores Joy Louisville, Ky.University of Louisville.
Patterson, Effie Johnson Wagram, N. C.Woman's College, University of North Carolina.
Peele, Mary Trulah Williamston, N. C.Meredith College.
Prevatt, Sara Carolyn Wilmington, N. C. Woman's College, University of North Carolina.
Name and Preparation Home Address
Proffitt, Doris Marie Roanoke, Va.Converse College.
Smyrna, S. C. Quinn, Rachel
Erskine College.
Rainwater, Julia Elizabeth Cheraw, S. C. Winthrop College.
Ray, Grace Elizabeth Burnsville, N. C. Brevard College.
.Lillington, N. C. Ray, Virgie Mae. Woman's College, University of Nortl Carolina.
Royer, Laura Nan. Bluefield, W. Va. Marion Colloge.
Shope, Barbara Rae. Des Moine, Iowa Mars Hill College.
.Hickory, N. C. Shuford, Dorothy MayAppalachian State Teachers College.
Sims, Peggy Pelzer, S. C. Woman's College, Furman University.
Small, Carolyn Fay Lancaster, S. C. W'inthrop College.
Smith, Fredericka Lucille. Jacksonville, Fla. Florida State College for Women.
Smith, Maude Ufford Clinton, N. C.
East Carolina Teachers College.
Stephenson, Nancy Augusta, Ga. Augusta Junior College.
Troxler, Enid Vestal...................................................................... Woman's College, University of North Carolina.
Weatherman, Betty Jean Winston-Salem, N. C. Lenoir-Rhyne College.
Whorley, Evelyn Genevieve. Roanoke, Va. Roanoke College.
Williams, Louise Dunn. Honea Path, S. C. Woman's College, Furman University.
Wilson, Billie Loranine Asheville, N. C. Mars Hill College.
Wilson, Doris Beatrice. Ahoskie, N. C. Woman's College, University of North Carolina.
GEOGRAPHICAL DISTRIBUTION OF STUDENTS
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Iowa 1 Tennessee ..... 1
Kentucky 3 Texas ..... 1
Michigan 2 Virginia ..... 22
Mississippi 2 West Virginia ..... 7
New Lersey ..... 2
Total ..... 205

## SCHOOL OF NURSING GRADUATES

NameAddressAdams, Barbara Fay..... James Walker Memorial Hospital, Wilmington, N. C.
Adams, Dorothy Ellen (Mrs. Ed. Rogers) . . . Night Supervisor, Duke Hospital Diploma, 1939; B.S., 1943.
Adams, Katie (Mrs. G. B. Hodge) . . . . . . . . . . . . . Nursing Arts, Duke Hospital Diploma, 1943; B.S., 1943.
Adams, Maude (Mrs. Percy White) . . . . . . . . . . . . . . . . . . . . . . . . Lynhaven, Va. Diploma, 1938 ; B.S., 1939.
Alexander, Ruth Brinkley (Mrs. David Wilson) . . ................ Greenville, S. C. Diploma, 1939; B.S., 1940.
Allan, Margaret. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Elberton, Ga. Diploma, 1940.
Alley, Charlotte (Mrs. Stuart Steele) Diploma, 1942. A. N. C., Moore General Hospital, Swannanoa, N. C.
Alley, Mary Lee. . . . . . . . . . . . . . . . . . . . . . . . . . . . Duke Hospital, Durham, N. C. Diploma, 1946.
Allred, Mary Jewel (Mrs. G. H. McSwain) . . . . . . . . . . . . . . . . . . . Durham, N. C. Diploma, 1942; B.S., 1942.
Applewhite, Ida Shaw (Mrs. Wm. Barber) . . 1919 Lenox Ave., Charlotte, N. C. Diploma, 1939; B.S., 1939.
Arnold, Aldine................................... 924 Vickroy St., Pittsburgh 19, Pa. Diploma, 1933.
Atkinson, Pauline (Mrs. J. A. Martin) .... 1210 Alabama Ave., Durham, N. C. Diploma, 1937.
Atzrodt, Rebecca (Mrs. Warner Wells) . . . . . . . . . . . . . . . . . Clarksburg, W. Va. Diploma, 1939; B.S., 1939.
Ayers, Mary Elizabeth (Mrs. Paul McKee) ............................Cambria, Va. Diploma, 1943; B.S., 1943.
Babb, Frances (Mrs. J. Russell Andrews) . . . . . . . . . . . . . . . . . . . . Princeton, S. C. Diploma, 1941; B.S., 1941.
Bagby, Virginia. .................... C. Station Hospital, Langley Field, Va. Diploma, 1940 ; B.S., 1940.
Bain, Barbara. .................................. 622 . 168th St., New York 32, N. Y. Diploma, 1943; B.S., 1943.
Baity, Martha (Mrs. Daniel Elliott) . . . . . . . . . . . . . . . . . . . . . . . . . Henderson, N. C. Diploma, 1944.
Baker, Alfreda.................................... . Duke Hospital, Durham, N. C. Diploma, 1946.
Baldwin, Olive Douglas................. Oliver General Hospital, Augusta, Ga. Diploma, 1944; B.S., 1944.
Banks, Katherine (Mrs. R. L. Lehman) . . . . . . . . . . . . . . . . . . . . . . . . . Chicago, Ill. Diploma, 1945; B.S., 1945.
Barbee, Sula (Mrs. George Parks) ...... 2309 Chapel Hill Rd., Durham, N. C. Diploma, 1938; B.S., 1940.
 Difloma, 1945.
Barickman, Martha
173 General Hospital Unit, APO 3507, c/o Postmaster, N. Y. C. Diploma, 1943; B.S., 1943.
Barnes, Mary Frances
A. N. C., 307 General Hospital Diploma, 1944 ; B.S., 1944.

Barton, Ruth (Mrs. Ed. Habbersett)
206 E. Westover Ave., Colonial Heights, Petersburg, Va. Diploma, 1939; B.S., 1939.
Bason, Betty G...................................... Duke Hospital, Durham, N. C. Diploma, 1946.

Beaton, Frances (Mrs. Gilbert Larson) Diploma, 1943; B.S., 1943. 1818 Hastings Ave., E. Cleveland, Ohio
Bell, Joyce (Mrs. Guy Hager) . . . . . . . . . . . . . 611 Ridge Ave., Sharpsville, Pa. Diploma, 1937.
Benbow, Marjorie Long
A. N. C., A. S. F., Regional Hospital, Fort Benning, Ga. Diploma, 1944.
Bennett, Anne. ............................... Nurse, Duke Hospital, Durham, N. C. Diploma, 1944; B.S., 1944.
Bennett, Virginia Rose (Mrs. John Bryan).... Duke Hospital, Durham, N. C. Diploma, 1945.
Beery, Anne (Mrs. G. F. Bieber) ............ 208 N. 7th St., Wilmington, N. C. Diploma, 1938.
Bigler, Ouida Louise...................... 1955 McLemore Ave., Memphis, Tenn. Diploma, 1941; B.S., 1941.
Bisanar, Lelia Elizabeth (Mrs. Adolphe L. Julienne)
Diploma, $1939 . \quad 606$ Palmetto Ave., Spartanburg, S. C.
Black, Frances (Mrs. Walter Hastings) . . . 8118 Foxdale Drive, Norfolk, Va. Diploma, 1937.
Blakely, Margie Dean (Mrs. William Thompson) Diploma, 1937.

89 E. Market St., Rhinebeck, N. Y.
Blythe, Charlotte........A. N. C., Moore General Hospital, Swannanoa, N. C. Diploma, 1945; B.S., 1945.
Bond, Sarah Roberts............................... Duke Hospital, Durham, N. C. Diploma, 1945.
Boone, Evelyn (Mrs. William Brumbeck) . . . 100 Little St., Belleville 9, N. J. Diploma, 1940.
Boone, Nellie (Mrs. Robert Coon)... 1209 N. El Paso, Colorado Springs, Colo. Diploma, 1936.

Boring, Dorothy Louise . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Plant City, Fla. Diploma, 1945.
Bowles, Josephine (Mrs. Richard Paddison) ...... Gloria Ave., Durham, N. C. Diploma, 1943.

Boykin, Elizabeth (Mrs. Griffin C. Callahan) ................. Ronceverte, W. Va. Diploma, 1943.

Bradshaw, Julia (Mrs. Leonard Suitt)
Supervisor of Nursing Service in Dispensary, Duke Hospital Diploma, 1934.
Brake, Thelma (Mrs. F. W. Zibowski) ......................... Rocky Mount, N. C. Diploma, 1940.
Braswell, Ruth Davis . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Princeton, N. C. Diploma, 1945; B.S., 1945.

Brevoort, Esther Ruth. . . . . . . . . . . . . . . . . . . . . . Duke Hospital, Durham, N. C. Diploma, 1946.

Name
Brewer, Lottie Mae (Mrs. Clarence Sapp) . . Health Dept., Wilmington, N. C. Diploma, 1938; B.S., 1938.
Brinkley, Gladys (Mrs. J. F. Stuckey) . . . . . 1911 Sunset Drive, Raleigh, N. C. Diploma, 1933.
Broadhurst, Jane (Mrs. Billie Whitted) . ............................. Durham, N. C. Diploma, 1945.
Brooke, Mary Inez. ................................ A. N. C., 65th General Hospital Diploma, 1941; B.S., 1941.
Brooks, Ida Florence (Mrs. George Bokinsky) Diploma, 1937. University Apts., Durham, N. C.
Bruffey, Jean (Mrs. John E. Pipes) ......... 1250 S.W. 6th St., Miami 35, Fla. Diploma, 1940.
Bryant, Carl Denyse (Mrs. Robert Stanley) Diploma, 1940; B.S., $1940 . \quad 209$ McPherson Lane, Greenville, S. C.
Bryant, Edith Virginia (Mrs. Joseph Chvatal)
Diploma, 1941; B.S., 1941. 519 E. 83rd St., New York 28, N. Y.
Bryant, Hazel (Mrs. C. C. Wallace) Diploma, 1937.

9 Court-4, Lake Forest, Wilmington, N. C.
Bunch, Mary Elizabeth. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Asheboro, N. C. Diploma, 1941; B.S., 1941.
Bunn, Esper Nan.................................................. Spring Hope, N. C. Diploma, 1942; B.S., 1942.
Byrd, Frances L. (Mrs. Wm. F. Lovell) . . . . University Apts., Durham, N. C. Diploma, 1945; B.S., 1945.
 Diploma, 1945; B.S., 1945.
Cadle, Evelyn (Mrs. Robert D. Capen)
Diploma, 1936; B.S., 1938. 1130 Pinewood Ave., Schenectady, N. Y.
Caldwell, Faire (Mrs. C. N. Franklin) . . . . . . . . . . . . . Route 2, Matthews, N. C. Diploma, 1934.
Camp, Delores (Mrs. J. L. Atkins) . . . . . . . . 1407 Dollar Ave., Durham, N. C. Diploma, 1935.
Cannady, Edythe Ethel (Mrs. Oscar Mims) . . . Duke Hospital, Durham, N. C. Diploma, 1946; B.S., 1946.
Carson, Bonnie (Mrs. Joe Jester) . . . . . . . . . . . . Box 430, Route 1, Fresno, Calif. Diploma, 1934.
Carter, Mary Irvine (Mrs. C. H. Gay) . . . 143 Huntley Place, Charlotte, N. C. Diploma, 1935.
Carver, Clara. ...................................... Duke Hospital, Durham, N. C. Diploma, 1946.
Castleberry, Margaret (Mrs. F. Malone) . . . 123 Fenwick St., Orangeburg, S. C. Diploma, 1939.
Cates, Ona Maude (Mrs. John Street)
Diploma, 1936. 2 Prospect Ave., c/o N. N. Walkin, Darien, Conn.
Caviness, Edith Ann. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Lillington, N. C. Diploma, 1945.
Chalker, Mary C. (Mrs. W. T. Watkins, Jr.)
No. 9 Lawrence Circle, Apt. 8U, Portsmouth Garden, Portsmouth, Va. Diploma, 1945.
Chittenden, Eleanor (Mrs. E. E. Menefee) .... 2102 Sprunt St., Durham, N. C. Diploma, 1935.

Churan, Dorothy $\ldots$.......................................................... Reading, Pa. Diploma, 1944.
Clapp, Elizabeth (Mrs. C. A. Collins) . . . . Quarropos St., White Plains, N. Y. Diploma, 1935 ; B.S., 1937.
Clay, Isa Telford...............N. C., Nat. Naval Med. Center, Bethesda, Md. Diploma, 1940; B.S., 1940.

Cobb, Mary Bernice ......................................... . . . Clinic, Duke Hospital Diploma, 1944; B.S., 1944.

Cobb, Zula (Mrs. Donald C. Meekham) . . 620 Ray Drive, Silver Spring, Md. Diploma, 1944.

Coggins, La Una (Mrs. Ira Ross) ........... 209 E. 33rd St., New York, N. Y. Diploma, 1943; B.S., 1943.

Colley, Myrle. . . . ................................................. Wilmington, N. C. Diploma, 1945; B.S., 1945.
Collins, Hallie Jo (Mrs. Jerry Jerome), Diploma, 1941; B.S., $1941 . \quad 3339$ S. W. Front, Apt. 1, Portland 1, Ore.
Combs, Thelma Jean (Mrs. W. A. Swanson) Diploma, 1942.

110 N. Kincaid Ave., Wilson, N. C.
Conrad, Phoebe Elizabeth
Duke Hospital Diploma, 1946.
Cook, Betty Wood (Mrs. J. Bramer) .................................. Palmyra, N. Y. Diploma, 1939; B.S., 1939.
Cook, Clara Bert (Mrs. Henry Bartlett).......................... New Orleans, La. Diploma, 1942.

Cook, Maude (Mrs. T. A. Peeples)....... 3865 Lakeshore Ave., Oakland, Calif. Diploma, 1938.

Cooke, Edith Celestia . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Duke Hospital Diploma, 1946.
Corbett, Mary Elizabeth (Mrs. R. W. Postlethwait) Diploma, 1936.

Station Hospital, Fort Myer, Va.
Cothran, Jane. . . . . . . . . . . . . Nurses' Home, General Hospital, Greenville, S. C. Diploma, 1945.

Cothran, Mary Lillie (Mrs. William Gregory) . .......... Box 133, Inman, S. C. Diploma, 1939; B.S., 1939.

Cotter, Ethel (Mrs. George Silver) . . . . . . . . . . . . . . . 161 Neal St., Portland, Me. Diploma, 1933.
Covington, Martha Lee. . . . . . . . . . . . . . . . . . . . . . . . . Head Nurse, Duke Hospital Diploma, 1945; B.S., 1945.

Covington, Mildred (Mrs. Robert Baeder) . . . . 432 Central Ave., Orange, N. J. Diploma, 1943.

Cowan, Frances (Mrs. Linwood Driver) . . . . . . . . . . . . . . . . . . . . . Durham, N. C. Diploma, 1942; B.S., 1942.
Craddock, Alice................................... Delivery Room, Duke Hospital Diploma, 1943; B.S., 1943.

Cranford, Kathryn (Mrs. James Roper).. 133 W. First Ave., Lexington, N. C. Diploma, 1934.

Crawley, Hattie Mildred.......................... Duke Hospital, Durham, N. C. Diploma, 1944; B.S., 1944.
Crowder, Janice (Mrs. Robert F. Mast) .... 805 S. Main St., Laurinburg, S. C. Diploma, 1944.
Name Address
Crowell, Alucia (Mrs. Wyatt McDaniel) Taylors, S. C.Diploma, 1939; B.S., 1940.
Crutchfield, Ruth (Mrs. W. P. Fields) .. 720 Sweet Bldg., Fort Lauderdale, Fla. Diploma, 1935; B.S., 1946.
Currence, Martha Instructor, Grace Hospital, Morganton, N. C.Diploma, 1938; B.S., 1941.
Curry, Johnsie Stowe Duke Hospital, Durham, N. C. Diploma, 1946.
Curtis, Catherine. A. N. C., 65th General Hospital Diploma, 1942.
Cutlip, Elenore Lee (Mrs. Hawthorne Sales) Head Nurse, Duke Hospital Diploma, 1943; B.S., 1943.
Daffin, Margaret L ..... N. N. C.Diploma, 1944; B.S., 1944.
D’Amico, Frances L. (Mrs. Thomas Power) Elberton, Ga. Diploma, 1944.
Darrough, Sara Diploma, 1941; B.S., 1941.
Davey, Margaret Veterans Facility, Fayetteville, N. C. Diploma, 1935.
Davis, Martha Jane Operating Room, Duke Hospital Diploma, 1945; B.S., 1945.
Davis, Pauline ..... HawaiiDiploma, 1945; B.S., 1945.
Davis, Ruth Night Supervisor, Duke Hospital Diploma, 1945.
Davis, Virginia Helen (Mrs. George Warlick)Diploma, $1945 . \quad 160$ W. Tennessee Ave., Oak Ridge, Tenn.
Deaton, Dorothy (Mrs. Henry Dratz) Supervisor, Duke HospitalDiploma, 1941.
Decker, Edna (Mrs. James Wrenn) Bellevue Hospital, New York, N. Y.Diploma, 1938; B.S., 1938.
Decker, Kathryn. .7411 N. Damen Ave., Chicago, Ill. Diploma, 1943.
DeLong, Sara Louise ..... Duke Hospital Diploma, 1946.
Denny, Janice Head Nurse, Duke Hospital Diploma, 1945.
Dettmar, Frances Aileene Duke Hospital Diploma, 1946; B.S., 1946.
Dobbin, Louise Rockingham, N. C. Diploma, 1934.
Doud, Jean..........N. N. C., Portsmouth Naval Hospital, Portsmouth, Va. Diploma, 1944; B.S., 1944.
Dugger, Carlotta (Mrs. Frank Mann) Waynesboro, Va. Diploma, 1941.
Dulin, Margaret (Mrs. T. E. Jackson).... Army Air Field, Apalachicola, Fla. Diploma, 1941.
Dull, Margie Head Nurse, Duke Hospital Diploma, 1944.
Dunn, Dorothy University Hospital, Augusta, Ga. Diploma, 1938; B.S., 1938.
Name Address
Durner, Hazel Ruth (Mrs. Moffitt Howell) Duke Hospital Diploma, 1945.
Eagles, Kathleen Saratoga, N. C.
Diploma, 1938; B.S., 1938.
Edwards, Margaret P. Varnville, S. C. Diploma, 1944.
Ellison, Ethel N. N. C., Charleston, S. C. Diploma, 1942.
Ensign, Carol Joy Duke HospitalDiploma, 1946; B.S., 1946.
Estes, Frances (Mrs. Robert Regan) 5-D Twin Pines, Macon, Ga.Diploma, 1937.
Estes, Jeane (Mrs. Jack Scott) 167 Yak Ave., Alexandria, Va. Diploma, 1942.
Evans, Elizabeth A. N. C., 65 th General Hospital Diploma, 1933.
Ezzell, Mary (Mrs. John C. Glenn, Jr.) Supervisor, Duke Hospital Diploma, 1944; B.S., 1944.
Farquhar, Mary (Mrs. Charles Elliott) . 602 Second St., California, Pa. Diploma, 1943; B.S., 1944.
Farrar, Mary Frances Durham, N. C. Diploma, 1943.
Farrior, Ethel Head Nurse, Duke Hospital Diploma, 1944.
Feagans, Hilda (Mrs. Fred Larson) Polyclinic Hospital, Harrisburg, Pa. Diploma, 1935.
Fisher, Mary Alice (Mrs. J. M. San) Clayton, Ga. Diploma, 1945.
Nursing Arts, Duke Hospital Fleming, JessamineDiploma, 1944 ; B.S., 1944.
Forrest, Margaret (Mrs. Ross Porter) Hillsboro, N. C. Diploma, 1935.
Fox, Irene C....... Flushing Hospital, Flushing, N. Y. Diploma, 1943.
Fox, June (Mrs. Hárold Schiro) Franklin, Va. Diploma, 1935.
.Ether, N. C. Freeman, M. TrudellDiploma, 1945.
Gaines, Dorothy 2233 Colony Rd., Charlotte, N. C. Diploma, 1943.
Galloway, Sue (Mrs. Marvin Hewlett) 1121 S. W. 7th St., Miami, Fla.Diploma, 1945.
Gambill, Ruth (Mrs. Ben Miller) 861 Abelia Rd., Columbia, S. C. Diplom:a, 1936.
Gambrell, Vivian Lexington, N. C. Diploma, 1946; B.S.. 1946.
Gandy, Virginia 39 W. Copeland Drive, Orlando, Fla. Diploma, 1940.
Gangle, Elsie (Mrs. Elliott Foster)...........................Box 663, Baden, Pa. Diploma, 1939.
Garris, Grace. A. N. C., 65th General Hospital Diploma, 1942.

Gibson, Jean (Mrs. Iva Landress) . . . . . . . . . . 827 10th St., St. Petersburg, Fla. Diploma, 1938.
Gillam, Hazel (Mrs. William Karmony) . . . . . . . . . . . . . . . . . Harrellsville, N. C. Diploma, 1937.
Givin, Nelle Brown. . . . . . . . . . . . . . . . . . . . 1216 Virginia St., Charleston, W. Va. Diploma, 1945.
Gladstone, Annie Laura (Mrs. C. S. Tilley) . 2017 Pershing St., Durham, N. C. Diploma, 1937.
Glen, Cecilia W.
Duke Hospital Diploma, 1940.
Goodman, Eunice. . . . . . . . . . . . . . . . . . . . . . . . . . . . Public Health, Raleigh, N. C. Diploma, 1934.
Gordon, Nellie (Mrs. H. G. Hess) Diploma, 1939. 1910 El Arbolita Drive, Glendale 8, Calif.
Gossett, Mary Frances Moncks Corner, S. C. Diploma, 1945.
Gray, Virginia . ....................................... Cove Hospital, Glen Cove, L. I. Diploma, 1945.
Green, Mary (Mrs. Dave Lester) . . 1202 Medico Dental Bldg., San Diego, Calif. Diploma, 1933.
Green, Mary Elizabeth (Mrs. Phillip Dewees) . . . . . . . . . . . . . . . . Duke Hospital Diploma, 1943; B.S., 1943.
Green, Patricia $\ldots \ldots . . .$. Diploma, 1944; B.S., 1944.
Greenlee, Helen. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Charlotte, N. C. Diploma, 1943; B.S., 1943.
Gum, Margaret. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . A. N. C., Florence, S. C. Diploma, 1942.
Gunter, Edith............................ Diploma, 1944 ; B.S., 1944.
Gurley, Louise (Mrs. W. W. Sutton) . . 208 N. 20th St., Morehead City, N. C. Diploma, 1934.
Hall, Myra. . . . . . ......................................... Camp Kilmer, N. J. Diploma, 1938; B.S., 1938.
Halter, Gladys
A. N. C. Diploma, 1944.
Hampton, Julia. . . . . . . . . . . . . . . . . . . Missionary Work, Belgian Congo, Africa Diploma, 1937.
Hanna, Mary Chapman. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Blacksburg, S. C. Diploma, 1945; B.S., 1945.
Harlow, Gene (Mrs. Charles Lewis) . . . . . . . . . . . . . . . . . . . . . . Jacksonville, Fla. Diploma, 1945.
 Diploma, 1944; B.S., 1944.
Harrison, Ethel.............A. N. C., USA Gen. Hospital, Camp Carson, Colo. Diploma, 1943; B.S., 1943.

Hartley, Dare (Mrs. James Filipsoki) .........A. N. C., 65th General Hospital Diploma, 1941; B.S., 1941.
Hartley, Jean. ................................. c/o P.M., San Francisco, Calif. Diploma, 1943; B.S., 1943.
Harvin, Anne (Mrs. J. L. Stewart) . . . . . . . . . . . . . . . . . . . . . . . . . Anderson, S. C. Diploma, 1942; B.S., 1942.NameAddress
Hawes, Ruth Mae (Mrs. George Fordham)
Philadelphia, Pa. Diploma, 1945; B.S., 1945.
Hawfield, Annie Joe ..... A. N. C.Diploma, 1933.
Hege, Margaret Elizabeth 209 Gloria Ave., Winston-Salem, N. C.Diploma, 1945.
Herman, Margaret (Mrs. Buford Guy) Statesville, N. C.Diploma, 1934; B.S., 1938.
Herman, Mary Alice (Mrs. H. V. Parks) Raleigh, N. C.Diploma, 1934; B.S., 1938.
High, Christine (Mrs. Bernard Huddy) Duke HospitalDiploma, 1933.
Hildreth, Lucille. ..... A. N. C.Diploma, 1944.
Hines, Margaret 419 Moreell Blvd., Orange, TexasDiploma, 1934; B.S., 1938.
Hinshaw, Esther Watts Hospital, Durham, N. C.Diploma, 1940; B.S., 1940.
Hinton, Anna Lee (Mrs. Bernard Fetter) . . 488 Greenwood Ave., Trenton, N. J.Diploma, 1944; B.S., 1944.
Hodges, Charlotte (Mrs. Dan Jones) 2805 Kilgore St., Raleigh, N. C.Diploma, 1937; B.S., 1938.
Holleman, Matilda (Mrs. Vince Moseley) Roxboro Rd., Durham, N. C.Diploma, 1934; B.S., 1936.
Holley, Mildred (Mrs. K. D. Weeks) University Apts., Durham, N. C. Difloma, 1937.
Hollowell, Maude. Head Nurse, Veterans Facility, Fayetteville, N. C.Diploma, 1935; B.S., 1938.
Horton, Theresa...... Obstetrical and Gynecological Supervisor, Duke HospitalDiploma, 1941; B.S., 1941.
Horton, Virginia...... A. N. C., Brown General Hospital, San Antonio, Texas Diploma, 1944; B.S., 1944.
House, Martha (Mrs. J. D. Cobb) Lumber Bridge, N. C. Diploma, 1944.
Humphrey, Frankie (Mrs. J. H. Rainey) Walterboro, S. C. Diploma, 1935; B.S., 1935.
Hunter, Frances (Mrs. H. D. Castilow)..... 248 Highland Ave., Passaic, N. J. Diploma, 1936.
Jarrett, Sara........................... 699 Haywood Road, W. Asheville, N. C. Diplama, 1938; B.S.. 1938.
Johnson, Gretchen (Mrs. Clyde Cheek) ..... 1911 Yearby Ave., Durham, N. C. Diploma, 1934.
Johnson, Josephine A. N. C., 65th General Hospital Dipioma, 1935; B.S., 1938.
A. N. C., 65th General Hospital Jones, Helen (Mrs. W. W. Nicholls)
Duke Hospital Jones, May Craigge Diploma, 1946; B.S., 1946.
Jones, Nancy A. N. C., 65th General Hospital
Diploma, 1940; B.S., 1940.
Kaiser, Edith Lexington, S. C. Diploma, 1945.
Name Address
Kale, Ella Mae. A. N. C., 65th General Hospital Diploma, 1911.
Keesee, Ellen (Mrs. William Craver)...Ass't Med. Supervisor, Duke Hospital Diploma, 1943.
Kime, Selena Liberty, N. C. Diploma, 1945; B.S., 1945.
Kincaid, Mary G. ..... N. N. C.
Diploma, 1944; B.S., 1944.
King, Martha Grey Duke Hospital
Diploma. 1976.
King, Mary Emily (Mrs. Robert Bailey) Public Health, Lenoir, N. C. Diploma, 1936.
King, Virginia B. (Mrs. James T. Funderbuck).... Spence Field, Moultrie, Ga. Diploma, 1974; B.S., 1944.
Kirby, Mary Katherine Newry, S. C.Diploma, $19+5$.
Kirkland, Sara (Mrs. Robert Malony) ..... Camp Kilmer, N. J.Diploma, $19+2$.
Klein, Frances (Mrs. Alfred Henderson) Durham, N. C. Diploma, 1934.
Knowles, Lois Nina Valrico, Fla. Diploma, 1945; B.S., 1946.
Krebs, Gladys. Hanover, Pa. Diploma, 1942.
Kuykendal, Margaret (Mrs. William Bizelle) Matthews, N. C. Diploma, 1934; B.S., 1938.
Lambeth, Evelyn Diploma, 1944; B.S., 1944.
Lawrence, Elizabeth Diploma, 1975; B.S., 1975.
Laws, Cicely Anne (Mrs. Clarence Anderson) Brentwood, Md.Diploma, 1946; B.S., 1946.
Leach, Martha (Mrs. Johnson) Duke Hospital Diploma, 1946; B.S., 1946.
Letherman, Alice. N. N. C., Fort Eustis, Va.Diploma, $19+2$.
Leatherwood, Elizabeth (Mrs. Bob Goode)Diploma, 1942; B.S., 1942.1601 S. Lincoln Ave., Springfield, Ill.
Ledford, Rubye (Mrs. T. Howell Mees)... 1707 E. Long St., Columbus 3, OhioDiploma, 1941; B.S., 1941.
Lepper, Mary Ellen Duke HospitalDiploma, 1946; B.S., 1946.
Lewis, Janice. A. N. C., Bethesda, Md. Diploma, 1943; B.S., 1943.
Ligon, Martha (Mrs. M. Hill Grimmett)Pine Crest Hotel, Apt. 302, Ocean View, Norfolk, Va.Diploma, 1942; B.S., 1942.
Lineberger, Mary Lou (Mrs. L. B. Ziv) Catawba, S. C.Diploma, 1937.
Lineberry, Nancy Raleigh, N. C. Diploma, 1946.
Lingle, Dorothy (Mrs. Henry Kamin) 401 Thompson St., East Point, Ga. Diploma, 1972.


May, Barbara........................................ 704 Harlow St., Tampa, Fla. Diploma, 1944.
Meeks, Marian Nurses' Army Air Force Diploma, 1943; B.S., 1943.
Melton, Iris (Mrs. J. O. Whitaker)..........................Hendersonville, N. C. Diploma, 1943; B.S., 1943.
 Diploma, 1934.
Miller, Frances (Mrs. W. C. Ramsey) Boone, N. C. Diploma, 1943; B.S., 1943.
Miller, Margaret..................................................... Duke Hospital Diploma, 1946.
Miller, Margaret C. (Mrs. William Logan).... Box 937, Fort Barrancas, Fla. Diploma, 1939.
Miller, Mary Sue
Duke Hospital Diploma, 1946.
Milton, Margaret (Mrs. H. W. Gates) .............Head Nurse, Duke Hospital Diploma, 1941.
Misenheimer, Rachel (Mrs. H. P. Morgan) Diploma, 1972.1481 Washington St., San Francisco, Calif.
Mitchell, Paula Mozelle (Mrs. R. J. Atwell) Diploma, 1945.

Nursing Education, Duke Hospital
Moore, Elizabeth. General Hospital, Greenville, S. C. Diploma, 1934; B.S., 1938.
Moore, Louise.
A. N. C., St. Petersburg, Fla. Diploma, 1942; B.S., 1942.
Moore, Margaret Carolyn (Mrs. Roderick Jones).............. Burnsville, N. C. Diploma, 1936; B.S., 1937.
Moore, Mary Alice................................Nursing Arts, Duke Hospital Diploma, 1942; B.S., 1942.
Morrison, Lavinia (Mrs. W. P. Pennoyer) Diploma, $1935 . \quad 53$ Prospect St., Apt. 615, Stanford, Conn.
Morison, Polly (Mrs. Frank Sellars)............................ Charlotte, N. C. Diploma, 1940.
Morrow, Nancy Anne Shaker Heights, Ohio Diploma, 1945.
Mortimer, Anne (Mrs. Jerry Lombardi)...... 73 Franklin St., Danbury, Conn. Diploma, 1942.
Nash, Doris (Mrs. A. H. Dunn)
1275 Chapel St., Westover Apt. No. 4, New Haven, Conn. Diploma, 1945; B.S., 1945.
Newman, Ruby (Mrs. S. A. Butler) ..... 946 Bradshaw Terrace, Orlando, Fla. Diploma, 1943; B.S., 1943.
 Diploma, 1945.

Norton, Ann (Mrs. Robert Chambers).............. Prince St., Durham, N. C. Diploma, 1933.
Olsen, Lurline (Mrs. George M. Gaston) . .. 1110 Elm St., Parkersburg, W. Va. Diploma, 1938; B.S., 1938.
O'Briant, Mary Frances (Mrs. C. S. Flynn) . . 61 Milford Ave., Newark 8, N. J. Diploma, 1944.

Name
Address
O'Neal, Christine . . . . . . . . . . . . . . . . . . . . . . . . . A. N. C., 65th General Hospital Diploma, 1941.
O'Rear, Jean Fray . . . . . . . . . . . . . . . . . . . . . . . . . . Duke Hospital, Durham, N. C. Diploma, 1946.
Osborne, Lucy
Diploma, 1944.
A. N. C.

Owens, Faith . . . . . . . . . . . . . . . . . . . . . . . . . . . . Duke Hospital, Durham, N. C. Diploma, 1946.
Painter, Isabelle............................. 4636 Keswick Rd., Baltimore 10, Md. Diploma, 1940; B.S., 1940.
Parker, Esther
A. N. C., 65th General Hospital Diploma, 1940; B.S., 1940.
Parker, Ida (Mrs. L. B. Council) . . . . . . . . . . . . . . . . . . . . . . . . . . . Oakville, Tenn. Diploma, 1935.
Parker, Mary Virginia. . . . . . . . . . . . . . . . . . . . . . . . N. N. C., Jacksonville, Fla. Diploma, 1943.
Parks, Virda (Mrs. Jim Marshall)
Diploma, $1936 . \quad 933$ S. Hawthorne Rd., Winston-Salem, N. C.
Parrish, Marcelle (Mrs. Bryan Harper) . . . . 845 27th St., Newport News, Va. Diploma, 1939; B.S., 1939.
Paynter, Marcella.
A. N. C., 65th General Hospital Diploma, 1940.
Peele, Margaret (Mrs. George E. King) ......................................... Diploma, 1937; B.S., 1937.
Pegram, Annie Lee.................... 708 Tuscaloosa Ave., Birmingham 7, Ala. Diploma, 1938; B.S., 1941.
Peppler, Dorothy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . McCook, Nebr. Diploma, 1943.
Perry, Mary (Mrs. Fred Fisher, Jr.) . . . . 707 Durante St., Charleston 10, S. C. Diploma, 1939; B.S., 1939.
Pickett, Margaret (Mrs. Basil M. Elder) Diploma, 1939; B.S., 1939.

2905 Marshall Ave., Newport News, Va.
Pimsner, Leontine I.
Superintendent of Nurses, Peninsula Hospital, Salisbury, Md. Diploma, 1944; B.S., 1944.
Pipkin, Celia Zoe................................................. Jacksonville, Fla. Diploma, 1943; B.S., 1943.
Poindexter, Kathaleen (Mrs. Charles E. Richards, Jr.) Diploma, 1942; B.S., 1942.
c/o T. H. Poindexter, Cana, N. C.
Poole, Carol. . . . . ........................... Science Instructor, Duke Hospital Diploma, 1942; B.S., 1942.

Pope, Virginia (Mrs. James Gilliam) . . . . . . . Guilford College, Guilford, N. C. Diploma, 1938; B.S., 1938.

Quattlebaum, Louise . . . . . . . . . . . . . . . . . . . . . . . . N. N. C., Charleston, S. C. Diploma, 1943; B.S., 1943.

Rabb, Iris (Mrs. John Baughman) . . . . . . . . . . . . . . . . . . . . . . . . . . . Moreland, Ky. Diploma, 1939; B.S., 1940.

Ramsey, Ruth W. (Mrs. John C. Fletcher) Diploma, 1944; B.S., 1944.

Seminary Hall, Forth Worth 10, Texas
Ransom, Audrey Mae
Duke Hospital, Durham, N. C. Diploma, $1940^{\circ}$.

Shearin, Mary Lina (Mrs. Walter Draughan) Durham, N. C.AddressDiploma, 1944.
Sheddy, Maxine (Mrs. Jack Bennett) Youngsville, Pa .Diploma, 1935.Sheldon, DorothyDiploma, 1942; B.S., 1942.San Francisco, Calif.Diploma, 1944.
Slade, Lucy......A. N. C., 176th Station Hospital, APO 5799, c/o Postmaster,Diploma, 1939; B.S., $1939 . \quad$ San Francisco, Calif.
Slocumb, Ruth W. Operating Room, Duke HospitalDiploma, 1944; B.S., 1944.
Smith, Adella May . Clinton, N. C. Diploma, 1945.
A. N. C., 176th Station Hospital, APO 5700, c/o Pastmaster,
Shields, Lois (Mrs. Jack Cannon)7209 E. Burwood Drive, Lucas Hunt Village, St. Louis, Mo.Smith, Annie Ruth (Mrs. Thomas F. Kelley, Jr.)............... Durham, N. C.Diploma, 1945; B.S., 1945.
Smith, Betty I. (Mrs. Ed Benbow) Pinehurst, N. C.Diploma, 1944.
Smith, Emily June. Carbarciss Hall, M.C.V., Richmond, Va.Diploma, 1945; B.S., 1945.
Smith, Edith Lucille ..... A. N. C. Diploma, 1944.Smith, Hilda (Mrs. Wm. Garvin) ................................ . Smyrna, N. C.Diploma, 1938; B.S., 1941.Smith, Jean P. (Mrs. David Rulon) .............. 7 Philips Rd., Melrose, Mass.Diploma, 1943; B.S., 1943.Smith, Lucy Fay....................................Head Nurse, Duke HospitalDiploma, 1946.Smith, Mary Alice (Mrs. Donald C. Hess)Diploma, 1944; B.S., $1944 . \quad 820$ N. Main St., Roswell, New Mexico
Smythe, Florrie (Mrs. Charles Mercer) Swansboro, N. C.Diploma, 1942; B.S., 1942.
Solomon, Hazel........................... 325 Grandin Rd., Charlotte, N. C. Diploma, 1945; B.S., 1945.
Sowers, Lucy Jo (Mrs. William Ernst).............. 532 Cherry St., Jesup, Ga. Diploma, 1941.
Steigleman, Betty (Mrs. B. H. White) Dipolma, 1942.
Dunkirk Rd., Rogers Ford, Baltimore, Md.
Stewart, Katherine (Mrs. James Holloway).. Operating Room, Duke Hospital Diploma, 1945; B.S., 1945.
Stiglitz, Adelaide........................... Delivery Room, Duke Hospital Diplcma, 1945; B.S., 1946.

Strother, Sarah (Mrs. Evan Cecil).... 109 Oakwood Court, High Point, N. C. Diploma, 1936.
Styron, Myrtle Frances................... 450 Douglas Ave., Portsmouth, Va. Diploma, 1945; B.S., 1945.
Sugg, Norma (Mrs. William Horner, Jr.) ................. Winston-Salem, N. C. Diploma, 1934.

## Name

Talley, Patricia Anne................................................. Duke Hospital Diploma, 1946.
Taylor, Helen Elizabeth............................................... Duke Hospital Diploma, 1946.
Taylor, Rebekah...................................N. N. C., Seattle, Washington Diploma, 1944; B.S., 1944.
Taylor, Virginia Louise...............................ead Nurse, Duke Hospital Diploma, 1945; B.S., 1945.
Thomas, Vera (Mrs. David McCulloch)
Durham, N. C. Diploma, 1935.
Thompson, Elizabeth (Mrs. George Pope) Diploma, $1936 . \quad 710$ E. Trinity Ave., Durham, N. C.
Thorpe, Annie Louise...............................Nursing Arts, Duke Hospital Diploma, 1946.
Thrower, Emma (Mrs. Vincent Doolittle) .................... Rockingham, N. C. Diploma, 1933.
Tierney, Helen Ida (Mrs. Joseph Zavertnik) Diploma, 1945; B.S., 1945. 1000 Moro St., Manhatten, Kansas
Tillett, Grace (Mrs. John Wiggins) ............... Pershing St., Durham, N. C. Diploma, 1933; B.S., 1938.
Tilley, Sophy M. (Mrs. Jack Staggers) .... 400 Batter Sea Rd., Norfolk 3, Va. Diploma, 1944.
Trawick, Betty Jean
Duke Hospital Diploma, 1946.
Umbel, Waneta (Mrs. J. W. Holland) . . . 2340 Chay St., San Francisco, Calif. Diploma, 1938; B.S., 1938.
Vaughan, Louise C.......................................................... Square, N. C. Diploma, 1945; B.S., 1945.
Voss, Jewel (Mrs. Beverly Jones).... Johns Hopkins Hospital, Baltimore, Md. Diploma, 1944.
Wade, Sara A. N. C., 65th General Hospital Diploma, 1941.
Wagner, Josephine (Mrs. Wm. E. Eldridge, Jr.) Diploma, 1940.

614 Virginia Are., Roanoke, Va.
Wahmann, Nancy B. (Mrs. M. M. Gibson) ... 109 Grant, Apt. 10, Denver, Colo. Diploma, 1945.
Wall, Jessie (Mrs. L. M. McCoy) .............. 509 College St., Winchester, Ky. Diploma, 1943; B.S., 1943.
Ward, Jessie (Mrs. L. C. Roberts) .......... 2028 Sunset Ave., Durham, N. C. Diploma, 1933; B.S., 1938.
Ware, Frances $\ldots \ldots \ldots \ldots$..................................... Diploma, 1934; B.S., 1939.
Warren, Joyce Elizabeth.....................Medical Supervisor, Duke Hospital Diploma, 1945; B.S., 1945.
Warren, Sue.................................A. N. C., 65th General Hospital Diploma, 1941.
Watkins, Martha Elizabeth (Mrs. Wm. C. Wilhoit)
Valdese, N. C. Diploma, 1945; B.S. 1945.
Weaver, Martha (Mrs. W. H. Broadway) ............ Box 34, Marshville, N. C. Diploma, 1940.
Weeks, Charlotte (Mrs. J. S. Hinkle)...... 12 Landvale Rd., Spotswood, N. J. Diploma, 1940; B.S., 1940.NameAddress
Wehunt, Rosabelle (Mrs. Z. T. Hampton) . . Surgical Supervisor, Duke Hospital Diploma, 1930.
Weintz, Edith (Mrs. Frank Poole)Diploma, 1942; B.S., 1942.801 N. Eatan, Hamilton Apt., Baltimore, Md.
Wells, Lila (Mrs. Paui Massengill) Greenwood, S. C.Diploma, 1943; B.S., 1943.
Whipple, Isabelle. 233 E. 15th St., Jacksonville 6, Fla.Diploma, 1942.
White, Betty Evelyn. Assistant Head Nurse, Duke Hospital Diploma, 1945.
White, Evelyn (Mrs. John F. Ott) Newport News, Va.Diploma, 1944; B.S., 1944.
White, Mary Jane (Mrs. R. S. Raulston) ... 602 Lamar Ave., Houston 3, Texas Diploma, 1943; B.S., 1943.
Whitener, Marion (Mrs. Steve Bartlett) .... 197 N.W. 88th St., Miami 38, Fla.Diploma, 1941; B.S., 1943.
Whiteside, Kathleen. A. N. C., Camp Gordon, Ga.Diploma, 1943; B.S., 1943.
Whitfield, Mae Joyce (Mrs. Hugh Dortch, Jr.)..Health Office, Duke Hospital Diploma, 1946.
Whitley, Maurine (Mrs. George I. Uhde) Columbia, Pa . Diploma, 1934.
Wilkinson, Dorothy Private Diagnostic Clinic, Duke Hospital Diploma, 1940; B.S., 1940.
Wilkinson, Elizabeth (Mrs. Everette Tompkins)Diploma, 1940; B.S., 1940.333 Main St., West Concord, Mass.Williams, Mary $\underset{\text { Diploma, } 1936 . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ R o u t e ~ 5, ~ B o x ~ 402, ~ G r e e n s b o r o, ~ N . ~ C . ~}{\text { N }}$Diploma, 1936.
Williard, Ruth Boaz .Duke Hospital Diploma, 1946.
Willcox, Mary Moore.................Assistant Head Nurse, Duke Hospital Diploma, 1945; B.S., 1945.
Wilson, Helen (Mrs. A. S. Matthews)Diploma, 1933.406 Blandwood Ave., Greensboro, N. C.
Wilson, Sarah (Mrs. William Eckbert) Southern Pines, N. C. Diploma, 1938.
Wirt, Emma. A. N. C., 65 th General Hospital Diploma, 1942; B.S., 1942.
Wirt, Julia B. 1.7. Duke Hospital
Wooten, Julia.... Student Health, Duke Hospital Diploma, 1937.
Wright, Marybelle (Mrs. Paul Simpson) .... 200 W. Queen St., Edenton, N. C.Diploma, 1943; B.S., 1943.
Wright, Ruby (Mrs. Don Phillips)5042 Colonial Ave., Lake Shore, Jacksonville, Fla.Diploma, 1943; B.S., 1943.
Wylie, Ruth Laura Glen Ferris, W. Va. Diploma. 1945.
Wynne, Wilda (Mrs. Jack Cooper) 212 Elm St., Erwin, Tenn. Diploma, 1942; B.S., 1942.
Name Address
Yarbrough, Pearl A. N. C., Oliver General Hospital, Augusta, Ga.Diploma, 1933.
Yates, Virginia (Mrs. C. W. Camalier) Box 441, Chase City, Va. Diploma, 1936.
Yoak, Betty Jo Diploma, 1945 ; B.S., 1945.
Young, Helen1941.
N. N. C., Brooklyn, N. Y.Diploma, 1941.
Yount, Kathryn (Mrs. Don Wirick) Fort Benning, Ga. Diploma, 1943.
Zirkle, Margaret (Mrs. W. J. Luck) 110 W. 34th St., Richmond, Va. Diploma, 1936.
GEOGRAPHICAL DISTRIBUTION OF GRADUATES
Africa 1 Massachusetts ..... 2
Alabama 1 Missouri ..... 1
Army Nurse Corps 31 Navy Nurse Corps ..... 2
California 9 Nebraska ..... 1
Canada 1 New Mexico ..... 1
Colorado 3 New Jersey ..... 8
Connecticut 4 New York ..... 12
District of Columbia 1 North Carolina ..... 192
Florida 21 Ohio ..... 4
Georgia 15 Oregon ..... 1
Hawaii 1 Pennsylvania ..... 11
Idaho 1 South Carolina ..... 26
Illinois 3 Tennessee ..... 4
Kansas 1 Texas ..... 4
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# BULLETIN OF DUKE UNIVERSITY 

## The Graduate School of Arts and Sciences



1945-1946
ANNOUNCEMENTS FOR 1946-1947

PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA

## ANNUAL BULLETINS

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For Bulletin of The College of Engineering, apply to The Secretary, Duke University, Durham, N. C.

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For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.

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For Bulletin of The Divinity School, apply to The Dean of the Divinity Schoul, Duke University, Durham, N. C.

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## BULLETIN

## OF

# Duke University 

THE GRADUATE SCHOOL OF ARTS AND SCIENCES

1945-1946
ANNOUNCEMENTS FOR 1946-1947

DURHAM, NORTH CAROLINA

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## CALENDAR OF THE GRADUATE SCHOOL

1946
June 27 Thursday, 9:00 A.m.-Registration of students for Summer Session, first term.
June 28 Friday, 8:00 A.m.-Instruction begins for Summer Session, first term.
July 4 Thursday-Independence Day: a holiday.
Aug. 8 Thursday, 9:30 A.m.-Registration of students for Summer Session, extended term.
Aug. 9 Friday, 8:00 A.m.-Instruction begins for Summer Session, extended term.
Aug. 29 Thursday-Extended term of Summer Session ends.
Sept. 18 Wednesday, 11:00 A.m.-Formal opening of the University.
Sept.18-21 Wednesday through Saturday-Registration of graduate students for first semester, by appointment.
Sept. 23 Monday-Instruction for graduate students begins.
Oct. 15 Tuesday-Last day for submitting thesis subjects for the degree of Doctor of Philosophy.
Nov. 4-9 French examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before October 24.
Nov. 11-16 German examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before November 1.
Nov. 15 Friday-Last day for submitting thesis subjects for the degrees of Master of Arts and Master of Education.
Nov. 28 Thursday-Thanksgiving Day: a holiday.
Dec. 11 Wednesday-Duke University Day.
Dec. 20 Friday, 1:00 P.m.-Christmas recess begins. 1947
Jan. 3 Friday, 1:00 p.M.-Instruction is resumed.
Jan. 8-17 Reading period.
Jan. 15-18 Wednesday through Saturday-Registration of graduate students for second semester, by appointment.
Jan. 18 Saturday-Mid-year examinations begin.
Jan. 28 Tuesday-Mid-year examinations end.
Jan. 30 Thursday-Second semester begins.
March 1 Saturday-Last day for applying for University fellowships, graduate assistantships, and graduate scholarships.
March 3-8 French examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before February 26.

March 10-15 German examinations for candidates for graduate degrees. Candidates register in the Graduate Office for these examinations before March 4.
March 22 Saturday, 1:00 P.m.-Spring vacation begins.
March 31 Monday, 8:00 A.M.-Instruction is resumed.
April 1 Tuesday-Students who expect to receive advanced degrees in May should notify the Graduate Office to that effect.
April 15 Tuesday-Last day for submitting theses for degree of Doctor of Philosophy.
April 21-May 3 Reading period. Instruction is resumed May 5, Monday, 8:00 A.m.
May 1 Thursday-Last day for submitting theses for degrees of Master of Arts and Master of Education.
May 19 Monday-Final examinations, second semester, begin.
May 29 Thursday-Final examinations, second semester, end.
May 31-June 2 Commencement.

## 1946



## 1947



## OFFICERS OF ADMINISTRATION

Flowers, Robert Lee, A.M., LL.D.
President of the University
Wannamaker, William Hane, A.B., A.M., Litt.D. l'ice-President and Dean of the University
Jordan, Charles Edward, A.B., LL.D.
Vice-President and Secretary of the University
813 Vickers Avenue
Markham, Charles Blackwell, A.B., A.M. Treasurer of the University

204 Dillard Street
Brower, Alfred Smith, A.B. Administrative Assistant

518 Morehead Avenue
Breedlove, Joseph Penn, A.B., A.M. Acting Librarian

407 Watts Street
Hoover, Calvin Bryce, A.B., Ph.D., Litt.D. 1702 Duke University Road Dean of the Graduate School of Arts and Sciences
Maxifell, William Cary, A.B., A.M., Ph.D.
A.sistant to the Dean of the Graduate School

142 Pinecrest Road

EXECUTIVE COMMITTEE OF THE GRADUATE SCHOOL COUNCIL CALVIN BRYCE HOOVER, A.B., Ph.D., Litt.D. Dean of the Graduate School of Arts and Sciences, ex officio ROBERT TAYLOR COLE, A.B., A.M., Ph.D. CLARENCE GOHDES, A.B., A.M., Ph.D. PAUL M. GROSS, B.S., A.M., Ph.D. BRADY R. JORDAN, Litt.B., Ph.D. PAUL JACKSON KRAMER, A.B., M.Sc., Ph.D. JOHN TATE LANNING, A.B., A.M., Ph.D.

## INSTRUCTIONAL STAFF

## MEMBERS OF THE GRADUATE SCHOOL COUNCIL

The date denotes the first year of service at Duke University.
Adams, Donald Keith, (1931) A.B., M.A., Ph.D. Associate Professor of Psychology

Cornwallis Road
Baum, Paull Franklin, (1922) A.B., A.M., Ph.D.
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112 Pinecrest Road
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131 Pinecrest Road
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922 Demerius Street
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Chelsea Circle, Hope Valley
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Hope Valley
Carlitz, Leonard, (1932) A.B., A.M., Ph.D. Professor of Mathematics

2303 Cranford Road
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926 Monmouth Avenue
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1503 Alabama Avenue
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124 Pinecrest Road
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Hope Valley

* Resigned, effective September 1, 1946.

Hall, Frank Gregory, (1926) A.B., A.M., Ph.D. Professor of Physiology

122 Pinecrest Road
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811 Watts Street
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$\dagger$ Resigned, August 31, 1945.
$\ddagger$ Absent on leave, Government Service, 1945-46.

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2239 Cranford Road
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$\dagger$ Humphrey, Don Dougan, (1945) A.B., Ph.D. Associatc Professor of Economics

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* Absent on leave, Government Service, July, 1945-February, 1946.
$\dagger$ Absent on leave, 1945-46.

Manchester, Alan Krebs, (1929) A.B., A.M., Ph.D.
Associate Professor of History
2016 Myrtle Drive
Markee, Joseph Eldridge, (1943) B.S., Ph.D.
Professor of Anatomy
512 Jackson Street
Martin, Donald Stover, (1932) A.B., M.D. 2208 Pershing Street Associate Professor of Bacteriology and Associate in Medicine
Maughan, William, (1931) B.S., M.F.
Professor of Forest Management 5 Sylvan Road
Neurath, Hans, (1938) Ph.D.
Associate Professor of Biochemistry
2505 Club Boulevard
Oosting, Henry John, (1932) A.B., M.S., Ph.D. Associate Professor of Botany

2642 University Drive
*Outler, Albert C., (1938) A.B., A.M., B.D., Ph.D. Associate Professor of Historical Theology

2122 Englewood Avenue
Patterson, Robert Leet, (1945) A.B., A.M., B.D., Ph.D. Professor of Philosophy

Duke University
Peele, Talmage Lee, (1939) A.B., M.D. Assistant Professor of Anatomy

University Apartments
Perry, Harold Sanford, (1932) A.B., Ph.D. Assistant Professor of Botany 2302 Cranford Road
Petry, Ray C., (1937) A.B., A.M., Ph.D. Professor of Church History

128 Pinecrest Road
$\dagger$ Quynn, Dorothy Mackay, Mrs., (1930) A.B., A.M., Docteur de l'Université de Paris Assistant Professor of History Woodridge Drive, Rockwood
Rankin, William Walter, Jr., (1926) B.E., M.A. Professor of Mathematics

1011 Gloria Avenue
Robert, Joseph Clarke, (1938) A.B., A.M., Ph.D. Associate Professor of History

1102 B Strect
Rose, Jesse Lee, (1936) A.B., M.A., Ph.D. Instructor in Latin and Greek 603 Watts Street
Sawyer, Charles Henry, (1944) A.B., Ph.D. Assistant Professor of Anatomy

2119 Englewood Avenue
Saylor, John Henry, (1928) A.B., A.M., Ph.D. Associate Professor of Chemistry

707 Club Boulevard
Schettler, Clarence Henry, (1946) A.B., A.M., Ph.D.
Associate Professor of Sociology
Duke University
Schumacher, Francis X., (1937) B.S. Professor of Forestry 6 Sylvan Road
Seeley, Walter James, (1925) E.E., M.S. Professor of Electrical Engineering 1005 Urban Avenue
Smith, David Tillerson, (1930) A.B., M.D. Professor of Bacteriology and Associate Professor of Medicine Hope Valley
Smith, Robert Sidney, (1932) A.B., A.M., Ph.D. Associate Professor of Economics

2236 Cranford Road
Springer, John Young, (1936) A.B., M.B.A.
Assistant Professor of Economics
Duke University

[^48]*Still, Bayrd, (1938) A.B., A.M., Ph.D. Assistant Professor of History

Duke University
$\dagger$ Stinespring, William Franklin, (1936) B.A., M.A., Ph.D.
Professor of Old Testament
1107 Watts Street
Talbert, Ernest William, (1942) A.B., A.M., Ph.D. Assistant Professor of English

2803 Nation Avenue
Taylor, Haywood Maurice, (1930) B.S., M.S., Ph.D. Associate Professor of Biochemistry and Toxicology

University Drive, Rockwood
Thomson, Roy Bertrand, (1938) B.S., M.F., Ph.D. Associate Professor of Forest Economics

2243 Cranford Road
Truesdale, James N., (1930) A.B., A.M., Ph.D. Assistant Professor of Greek

Duke University

Van Alstyn, Dorothy, (1942) A.B., A.M., Ph.D. Visiting Assistant Professor of Education

102 Faculty Apartments
Walter, David Oswell, (1942) A.B., A.M., Ph.D., J.D. Visiting Assistant Professor of Political Science 2809 Legion Avenue
Walton, Loring Baker, (1929) A.B., Lic. ès L., Ph.D. Associate Professor of Romance Languages

2235 Cranford Road
Ward, Charles Eugene, (1927) A.B., A.M., Ph.D. Associate Professor of English

Guess Road
Way, Vernon Elgin, (1930) A.B., A.M., M.A. Assistant Professor of Greek

909 Gregson Street Pickett Road
Welfling, Weldon, (1936) A.B., M.A., Ph.D. Associate Professor of Economics and Business Administration
Wilson, Robert North, (1910) A.B., M.S. Professor of Chemistry

822 Third Street
Woody, Robert Hilliard, (1929) Ph.B., A.M., Ph.D. Associate Professor of History

2648 University Drive

Humm, Harold Judson, (1942) B.S., A.M., Ph.D. Assistant Director, Marine Station Beaufort, N. C.

## RESEARCH ASSOCIA'TES

$\ddagger$ Adams, Joe Taylor Chemistry Durham, N. C. B.S., Southern Methodist University; Ph.D., Duke University
$\ddagger$ Amore, Salvatore Thomas Chemistry Durham, N. C. A.B., Brooklyn College ; A.M., Ph.D., Duke University
$\ddagger$ Breslow, David Samuel Chemistry Durham, N. C. B.S., College of the City of New York; Ph.D., Duke University

Darkis, Frederick Randolph Chemistry Durham, N. C. B.S., A.M., Ph.D., University of Maryland

Few, Joseph A. Chemistry Oxford, N. C. A.B., Wofford College

Pittard, M. M. Chemistry
Durham, N. C. B.S., Wake Forest College

- On active duty, U. S. Army.
+ Absent on leave, Anglo-American Commission on Palestine, second semester, 1945.46. $\ddagger$ Resigned, December 31, 1945.


## UNIVERSITY FELLOWS

Braverman, Elizabeth Miriam

Parks
A.B., Grinnell College

Braverman, Howard
English
Durham, N. C.
History
Durham, N. C.
A.B., Brooklyn College ; A.M., Duke University
*Carr, Thomas Deaderick
Physics
Umatilla, Fla.
B.S., M.S., University of Florida

Carroll, Howard
Religion
Easton, Md.
A.B., University of Richmond; B.D., Duke University

Clavering, Rose
English
Brooklyn, N. Y.
A.B., Brooklyn College

Cohen, Eckford Larry
B.S., Mississippi State College

Dillingham, William Pyrle Economics Durham, N. C. B.A.E., University of Florida; M.S., University of Tennessee

Gesling, Martha Myra Education Lancaster, Ohio
A.B., Ohio Northern University ; A.M., Ohio State University
$\dagger$ Hopkins, James Franklin History New Haven, Conn.
A.B., University of Mississippi : A.M., University of Kentucky

Kingston, Marion Josephine English Melrose, Mass.
A.B., Mount Holyoke College

Kirwan, Albert Dennis History Lexington, Ky.
A.B., University of Kentucky ; LL.B., Jefferson School of Law ; A.M., Uni-
versity of Louisville
Lewis, Frank Bell Religion Maxwelton, W. Va.
A.B., A.M., Washington and Lee University ; B.D., Th.M., Union Theological Seminary
$\dagger$ Malone, Thomas Patrick Sociology Durham, N. C.
A.B., Duke University

Meserve, Bruce Elwyn Mathematics Portland, Maine
A.B., Bates College ; A.M., Duke University
$\dagger$ Perry, Percival History Chesterfield, S. C.
A.B., Wake Forest College ; A.M., Rutgers University

Rhodes, Daniel Durham Religion Rocky Point, N. C.
A.B., Davidson College; B.D., Louisville Presbyterian Theological Seminary

Rogers, Dorothy Education Ashburn, Ga.
A.B. in Ed., A.M., University of Georgia

Schafer, Thomas Anton Religion E. Liverpool, Ohio
A.B., Maryville College ; B.D., Louisville Presbyterian Theological Seminary

Shirey, William Arthur Sociology Durham, N. C.
A.B., DePauw University ; A.M., Indiana University
$\dagger$ Silk, Leonard Solomon Economics Atlantic City, N. J.
A.B., University of Wisconsin.

Tomlinson, Muriel Dorothy Romance Languages Manchester, Conn. A.B., Bates College; A.M., Duke University

[^49]Wiggins, Pauline Evelyn
A.B., University of Chattanooga

Wood, Virginia Loraine
English
Political Science
A.B., Roanoke College; A.M., Duke University

## GRADUATE SCHOLARS

Barnett, Roberta Irene Romance Languages Chevy Chase, Md. A.B., Woman's College of the University of North Carolina
*Baxter, Joseph Ray History Newport, Ky. A.B., Berea College ; A.M., Duke University

Brownlee, William Hugh Religion Sylvia, Kan. A.B., Sterling College; Th.B., Pittsburgh-Xenia Theological Seminary

Chernuchin, Vivian Economics Jamaica, N. Y.
A.B., Queens College

Clark, Ellen Mercer
Latin
Keysville, Va.
A.B., University of Richmond ; A.M., Duke University

Elkins, Elaine Biochemistry
A.B., Wellesley College

Hester, William Philosophy Atlanta, Ga.
A.B., A.M., Emory University

Jenness, David Montgomery
History
Greenville, S. C.
A.B., Furman University
*Logan, Samuel Frank History N. Augusta, S. C.
A.B., Wofford College

McGriff, Mary Emily History Birmingham, Ala.
A.B., Duke University
$\dagger$ McLain, Robert Wayne Religion Statesville, N. C.
A.B., Berea College ; S.T.B., Boston University School of Theology

Muldrow, Mary Frances Romance Languages Milledgeville, Ga. A.B., Georgia State College for Women
*Munger, Bernard Vernon Religion Graham, N. C. A.B., Washburn Municipal University ; B.D., Chicago Theological Seminary

Overcash, Carol Romance Languages Kannapolis, N. C. A.B., Woman's College of the University of North Carolina

Peters, Edith Erickson Economics Rahway, N. J.
A.B., New Jersey College for Women
$\dagger$ Rhodes, Ethel Irene Truscott Religion Rocky Point, N. C.
A.B., Coker College

Robinson, Jean Eleanor Biochemistry South Orange, N. J. A.B., Adelphi College
$\dagger$ Sample, Kathleen
Botany
Daytona Beach, Fla.
A.B., John B. Stetson University

Sommer, Esther Lucille History Peoria, Ill. A.B., McMurray College

Strowd, Martha Ann
English
Henderson, N. C.
A.B., Woman's College of the University of North Carolina

* Second semester only.
$\dagger$ First semester only.

Topper, Pearl
History
Mount Vernon, N. Y.
A.B., Marshall College

Weathers, Willie True
English
Aylett, Va.
A.B., Randolph-Macon Woman's
*White, Helen Louise
Mathematics Arlington, Va.
A.B., University of North Carolina

Young, Milla Elizabeth
A.B., Hiram College

## GRADUATE ASSISTANTS

Anglin, Milton
Psychology
New York, N. Y.
B.S., College of the City of New York

Beaman, Mary Elizabeth
Mathematics
Sumter, S. C.
A.B., Winthrop College

Blackburn, Lillian Ione
Chemistry Miami, Fla.
B.S., Duke University

Botdorf, Ruth Graybill
A.B., Susquehanna University
$\dagger$ Brewer, Earl David Clarence
Chemistry
Harrisburg, Pa.
Sociology
Bahama, N. C.
B.Ph., B.D., Emory University

Cavin, William Pinkney
Chemistry
Spartanburg, S. C.
A.B., Wofford College

Coolidge, Cary
Romance Languages Nashville, Tenn. A.B., Blue Mountain College; A.M., George Peabody College for Teachers

Culbertson, Jack Arthur German Nickelsville, Va. A.B., Emory and Henry College
$\ddagger$ Cummings, Anne Burt Stainback Psychology
Pittsburgh, Pa.
A.B., Hollins College

Field, Frank Henry Chemistry Durham, N. C.
B.S., A.M., Duke University
**Futterman, Yvette Sociology Yonkers, N. Y. B.S., Columbia University

Gibbons, Jean Worley Zoology Dallas, Texas
A.B., Texas Technological College
**Holland, Ruth
Zoology
A.B., New York University

Holton, Jean Ortiz Morris Zoology A.B., Millsaps College

Hornaday, John Albert Psychology A.B., Duke University

Johnson, Natalie Kristina
Romance Languages Miami, Fla.
A.B., Duke University

Kantor, Simon
Chemistry
B.S., College of the City of New York

Kingsbury, Ralph Norman
Chemistry
New York, N. Y.
Milton, Mass.

* Resigned, December 10, 1945.
$\dagger$ Second semester only.
$\ddagger$ Resigned, February 1, 1946.
** Resigned, January 30, 1946.
*Knox, Norman Davis
English
Durham, N. C.
A.B., Swarthmore College
† Macintosh, Fred Henry
English
Clemson, S. C.
A.B., University of South Carolina; A.M., Duke University

McKenzie, Emory Jariel
English
Lorraine, Kan.
A.B., Ottawa University
$\dagger$ Ohlson, John Algoth
Psychology
Durham, N. C.
B.S., A.M., Northwestern University

Parker, Mary Ellen Chemistry Roanoke, Va.
A.B., Randolph-Macon Woman's College

Peters, Frank Anthony Political Science Tuscaloosa, Ala. A.B., University of Alabama

Purcell, Charles William, Jr. History Huntington, W. Va. A.B., Marshall College

Ringler, Betty Irene
Chemistry
St. Petersburg, Fla.
B.S., Florida State College for Women

Rogers, Hollis Jelton Botany Stearns, Ky. B.S., Murray State Teachers College; M.S., University of Kentucky

Saltzman, Irving Jackson
Psychology
Dorchester, Mass. B.S., Massachusetts State College

Schulze, Frances Elaine Psychology Pelham Manor, N. Y. A.B., Marshall College

Sowder, Ellie Mae Psychology Chattanooga, Temn.
A.B., University of Chattanooga

Strain, Sara Bob Botany Rome, Ga. A.B., Shorter College
$\ddagger$ Swamer, Frederic Wurl Chemistry Appleton, Wis. A.B., Lawrence College ; A.M., University of Wisconsin

Thomas, Mary Olive English Auburn, Ala. A.B., Agnes Scott College ; A.M., University of North Carolina
†Thomason, Jane Taylor English Roanoke Rapids, N. C. A.B., Woman's College of the University of North Carolina

Vingiello, Frank Anthony Chemistry Brooklyn, N. Y. B.S., Polytechnic Institute of Brooklyn

Walker, Howard George, Jr. Chemistry Westfield, N. J. B.S., Duke University

GRADUATE RESEARCH ASSISTANTS
Bloom, Melvin Sigmund Chemistry Greenville, S. C. B.S., Furman University ; A.M., Duke University

Hackney, Edward June Chemistry Durham, N. C. B.S., Duke University

Manes, Milton Chemistry Durham, N. C. B.S., College of the City of New York

Scheraga, Harold Abraham Chemistry Durham, N. C. B.S., College of the City of New York; A.M., Duke University

* Resigned, January 30, 1946.
$\dagger$ Second semester only.
$\ddagger$ Appointment began December 1, 1945.

| Shivers, Joseph Clois, Jr. <br> B.S., A.M., Duke University | Chemistry | Riverton, N. J. |
| :--- | :--- | ---: |
| Thompson, Donald F. <br> B.S., M.S., Tuft College | Chemistry | Lynn, Mass. |
| Weiss, Martin Joseph <br> A.B., New York University | Chemistry | New York, N. Y. |

THE ELI LILLY FELLOWSHIP
Yost, Robert Stanley Chemistry Pottsville, Pa.
B.S., Pennsylvania State College

## THE CARBIDE AND CARBON CHEMICALS CORPORATION FELLOWSHIP IN ORGANIC CHEMISTRY

Sanderson, James J. Chemistry Stamford, Conn.
B.S., Massachusetts State College; M.S., University of Connecticut

GRADUATE APPOINTMENTS IN THE SCHOOL OF MEDICINE
Research Associate and Instructor in Biochemistry
*Putnam, Frank W.
Durham, N. C.
A.B., A.M., Wesleyan University ; Ph.D., University of Minnesota

Nutrition Foundation Fellow and Instructor in Biochemistry
$\dagger$ Huff, Jesse William
Jeannette, Pa .
B.S., University of Pittsburgh; Ph.D., Duke University

Abbott Laboratories Fellow in Biochemistry
Volkin, Elliot Mt. Pleasant, Pa.
B.S., Pennsylvania State College; A.M., Duke University

Research Assistants in Biochemistry
Levitas, Nora
Brooklyn, N. Y.
A.B., Brooklyn College

Rosen, Fred Irvington, N. J.
B.S., University of Wisconsin

Elkins, Elaine Cincinnati, Ohio
A.B., Wellesley College

Segal, Solomon Scranton, Pa.
B.S., Pennsylvania State College
$\ddagger$ Robinson, Jean Eleanor
A.B., Adelphi College

South Orange, N. J.

Research Assistant in Physiology
Zimmerberg, Helen Yarmush
A.B., Brooklyn College

Raleigh, N. C.

Research Assistant in Bacteriology
Pope, Hilda
Griffin, Ga.
A.B., Georgia State College for Women

* Resigned, June 1, 1946.
$\dagger$ Resigned, July 1, 1946.
$\ddagger$ Resigned, December 31, 1945.


# GRADUATE INSTRUCTION IN DUKE UNIVERSITY 

ADMISSION<br>\section*{TO GRADUATE COURSES}

A student who has received the A.B. or B.S. degree from an institution of recognized standing for a four-year undergraduate course may be admitted to take graduate courses in the Graduate School of Arts and Sciences of Duke University, provided that his undergraduate record gives positive evidence of ability to undertake graduate study successfully. An average grade of not less than " B " is ordinarily accepted as evidence of such ability.

All new applicants for admission to graduate courses are now required to take the Graduate Record Examination before they can be admitted. In cases where it is not possible to take the examination before arrival at Duke University and where the transcript of work taken elsewhere clearly shows that the student is otherwise eligible, the examination may be taken the first time it is given here after the student's arrival. Students may make their arrangements for taking this examination directly with the Graduate Record Office, 437 West 59th Street, New York City. Examinations will be conducted several times each year at centers distributed throughout the United States and Canada.

No college or university work taken before the Bachelor's degree is conferred, or fully earned, may be credited toward an advanced degree except under the following circumstances: A student of Duke University who lacks at the beginning of a semester not more than nine semester hours of fulfilling the requirements for the Bachelor's degree may obtain permission from the Dean of the Graduate School to take during the semester graduate courses sufficient to bring his total work to fifteen hours a week. Such graduate courses will be credited toward the degree of Master of Arts or Master of Education if registered in the Graduate School Office at the beginning of the term and if the student meets the requirements below for formal admission to the Graduate School.

A candidate for admission to graduate courses should ask the proper officer of the college(s) he attended to send directly to the Dean of the Graduate School an official transcript of his undergraduate record. An advanced student should provide also a transcript of the graduate work completed by him. Students who have attended more than one college or university should note that certification by one institution of work completed at another institution cannot be accepted. In no case will a transcript presented by the candidate himself be accepted as a basis for admission, nor will a transcript mailed by any institution be returned to the student. An application blank for admission will be provided upon request to the Dean of the Graduate School. The transcript and appli-
cation should be submitted to the Graduate School by September 1 for admission in the autumn semester and by January 10 for admission in the spring semester.

## TO THE GRADUATE SCHOOL

After twelve semester hours of graduate work, the student may apply for admission to the Graduate School, and thus become a candidate for the Master's degree. Such admission is dependent upon the fulfillment of two conditions. (1) The student must have made a mark of " $G$ " or "Good" in at least three semester hours of work, with no mark less than "S." Candidates who cannot meet this condition may at a later time submit their records for re-evaluation, provided that in their subsequent work they shall have made a substantial number of "G's." (2) The student in his undergraduate work must have met substantially the requirements for the A.B. or B.S. degree at Duke University.* Any deficiencies of undergraduate work must be satisfied before admission to the Graduate School. Graduate courses taken at Duke University prior to formal admission to the Graduate School will count toward a higher degree provided they are in accord with its requirements and are acceptable to the major department. A graduate student may be requested to withdraw from the University at the discretion of the Dean of the Graduate School.

## REGISTRATION

Before actually registering in the Graduate School Office, the student who is admitted to graduate courses should consult with the Director of Graduate Studies or his representative in the department in which he proposes to major and receive written approval of his schedule of courses. This can be done during the registration period in September and January. The department concerned will determine whether a student is prepared to take any particular course. In all cases the student must make up without credit toward a graduate degree all prerequisites required by the major department of candidates for advanced degrees. Stucients who have fulfilled the minimum residence requirements for the doctorate but who are continuing resident study at Duke University for the degree should register in the Graduate School Office, even though there may be no fees to be charged.

New students are advised to arrive early during the registration period in order to formulate their programs. Anyone registering for courses after the close of the regular registration period will be charged a late registration fee of five dollars.

## TUITION AND FEES <br> GENERAL FEES IN THE ACADEMIC YEAR

The following table shows the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that

[^50]semester. No student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.
Matriculation, per semester................................................... . . $\$ 25.00$
Tuition, per semester. 150.00

Room-rent-See detailed statement on pages 24-25.
Athletic Fee, admitting students to all athletic contests held on the University grounds, per semester, optional.5.00
Damage Fee, payable annually in September. ..... 1.00
Medical Fee, per semester. ..... 10.00
Library Fee, per semester. ..... 5.00
Commencement Fee, payable once by graduate students in the last semester before a degree is conferred ..... 3.00
Diploma Fee, payable by candidates for degrees at the beginning of the second semester, refunded if the diploma is not awarded......... ..... 5.00Special Thesis Fee, payable by candidates for Ph.D. degree in the lastsemester before the degree is granted. Returned on satisfactorypublication of thesis. See pages 32-33...50.00

## SPECIAL FEES

Graduate students in the sciences are required to pay the regular laboratory fees for courses as determined by the various departments. An administrative fee is charged in connection with special research work in the summer under direction of a member of the Faculty.

## STUDENTS FROM THE UNIVERSITY OF NORTH CAROLINA GRADUATE SCHOOL

Under an experimental plan of co-operation between the University of North Carolina and Duke University, regular students from the University of North Carolina Graduate School admitted to courses in the Duke University Graduate School pay a registration fee of two dollars and any laboratory or special course fees which are required of all students.

## TRANSCRIPTS

A student desiring to transfer from Duke University to another institution is entitled to one free transcript of his record. A charge of one dollar, payable in advance, is made for each additional copy. Transcripts of students who enroll in graduate courses only in the summer sessions are issued by the Summer Session Office prior to the fulfillment of all requirements toward an advanced degree, after which time they can be obtained in the regular way from the Graduate School.

## PAYMENTS TO FELLOWS, SCHOLARS, AND GRADUATE ASSISTANTS

Payments by the University of stipends to fellows, scholars, and graduate assistants are made in four equal installments, approximately the middle and end of each semester. Tuition and fees are charged against the stipends.

Fellows and scholars are required to pay the regular tuition and fees and are expected to take a full program of work. Assistants who are permitted to register for only four fifths of a regular program are charged a proportionate amount of the tuition in addition to the regular matriculation and other minor fees.

## SPECIAL CHARGES FOR TEACHERS AND OTHERS

For the purpose of aiding North Carolina teachers in their professional preparation, Duke University grants a special tuition rate to members of the faculties of near-by schools and colleges who desire to register during the regular academic session for one or two graduate courses. For such courses a teacher regularly employed and teaching while taking these courses is charged a registration fee of five dollars at the beginning of each semester and a tuition fee of three dollars per semester hour of course credit, together with any laboratory fees which may be required in these courses. Under this provision a student may not register for more than seven hours per week.

Employees of Duke University who are paid on a monthly basis throughout the year, ministers of near-by churches, and wives of the Duke Faculty may be included under the above provisions by the Dean of the Graduate School, provided that such persons do not receive residence credit in any semester for more than two fifths of a regular program in meeting the requirements for advanced degrees.

The special tuition rate for teachers does not apply in any case to the holders of fellowships, graduate scholarships, and graduate assistantships annually awarded in the Graduate School nor to teachers on leave of absence and not actually engaged in their teaching at the time of registration.

## LIVING ACCOMMODATIONS AND EXPENSES Rooms

On the West Campus a graduate building, Few Quadrangle, was opened in September, 1939, with accommodations sufficient to meet the requirements of the men in the Graduate School and in the professional schools. Special sections are reserved for those registered in the Graduate School of Arts and Sciences. On the East Campus a limited number of rooms in the Faculty Apartments is available to women registered in the Graduate School. Students' rooms, both on the Woman's College Campus and on the West Campus, are supplied with all necessary furniture. The student should plan to provide his own towels, sheets, pillows, pillowslips, bedcoverings, and table lamp.

Rooms for men in the graduate dormitory on the West Campus vary in rent between $\$ 50.00, \$ 62.50$, and $\$ 75.00$ per semester. In the Faculty Apartments on the Woman's College Campus, a single room rents for $\$ 87.50$ per semester, a double room for $\$ 62.50$ per semester per person.

Rooms are reserved only for students who have been officially admitted to graduate courses by the University. They are rented for no shorter period than one semester. The occupancy of a room for less than one semester will cost the student one dollar each day unless he makes the necessary arrangements with the Director of the Business Division before occupying the room. Men who desire to live in the graduate dormitory should make application to the Director of the Business Division, Duke Station, Durham, N. C. A room reservation fee of $\$ 25.00$ is required for a definite room assignment. The reservation fee is deducted from the room charges at the time of registration. Those who make
application and are accepted will not be entitled to have the reservation fee refunded unless the request for refund is made on or before 60 days prior to the beginning of the semester registration date. Similarly, women who wish to room in the Faculty Apartments should make application and pay the room reservation fee to Mr. W. A. Tyree, Director of the Business Division. This fee is deducted from the room-rent in the fall and is not refundable unless the request is made on or before July 15. Early application for a dormitory room is essential if the student wants to be assured of living accommodations on the campus.

A resident student who wishes to retain his room for the succeeding semester must pay a reservation fee of $\$ 25.00$ to the Treasurer's office and then notify the office of the Director of the Business Division on or before an announced date. All rooms which have not been reserved by that date will be considered vacant for the succeeding year. When a room is once engaged by a student, no change will be permitted except with the consent of the Director of the Business Division.

Graduate students are required to observe the same general regulations as undergraduate students with respect to the use of the rooms. Leaving one room and occupying another without permission is strictly forbidden and will render the offender liable to a charge for both rooms for the entire semester. No occupant is permitted to rent or sublet a room to another occupant. The use of a room for merchandising of any kind is not allowed.

The University does not assume the responsibility for the personnel selected as roommates, though it will gladly render any assistance possible in the matter.

## BOARDING ACCOMMODATIONS

Men and women enrolled in the Graduate School will find superior dining facilities in the Unions on the East and West Campuses. The charge for board approximates $\$ 1.00$ to $\$ 1.50$ per day. The Union on the West Campus has, in addition to the regular dining halls, a coffee shop in which a la carte service is available.

## ESTIMATED EXPENSES IN THE ACADEMIC YEAR

The necessary expenses of a graduate student are moderate. The University dormitories and Unions provide comfortable and wholesome living conditions at a minimum cost. Incidental expenses for recreation, smoking, traveling, clothes, and other items naturally depend on the tastes and habits of the individual. The table below lists the necessary college expenses for one year:

|  | Low | Moderate | Liberal |
| :---: | :---: | :---: | :---: |
| Tuition | \$300.00 | \$300.00 | \$300.00 |
| Matriculation | 50.00 | 50.00 | 50.00 |
| Room-rent | 100.00 | 125.00 | 150.00 |
| Board | 270.00 | 337.00 | 400.00 |
| Laundry | 20.00 | 25.00 | 30.00 |
| Books | 22.50 | 30.00 | 45.00 |
| Library Fee | 10.00 | 10.00 | 10.00 |
| Athletic Fee | 10.00 | 10.00 | 10.00 |
| Damage Fee | 1.00 | 1.00 | 1.00 |
| Medical Fee | 20.00 | 20.00 | 20.00 |
|  | \$803.50 | \$908.00 | \$1,016.00 |

## FELLOWSHIPS, SCHOLARSHIPS, AND ASSISTANTSHIPS

For the assistance and encouragement of graduate students of high character and marked ability, the University has established a considerable number of fellowships and scholarships. Holders of fellowships and scholarships will be expected to pay the tuition fee and such additional fees as are regularly required. Applications for these appointments together with supporting credentials should be received on or before March 1 of each year. In case vacancies occur, applications submitted on a later date will be considered. Appointments which were offered for the year 1946-47 are listed below.

## FELLOWSHIPS

One Angier Duke Memorial Fellowship of one thousand dollars.
Twenty university fellowships with stipends varying from six hundred to eight hundred and fifty dollars each.

Two Gurney Harriss Kearns Fellowships in Religion of seven hundred dollars each.

Fellows will be required to give a limited amount of assistance in reading papers, in laboratories, or in other departmental duties. All fellows carry a full program of graduate work.

## GRADUATE SCHOLARSHIPS

Twenty-five graduate scholarships with stipends varying from four hundred to five hundred dollars each.

Scholars may be asked to give a limited amount of assistance in departmental work. They normally carry a full program of graduate studies.

## CHARLES W. HARGITT RESEARCH FELLOWSHIP IN ZOOLOGY

The Charles W. Hargitt Research Fellowship in Zoology, carrying a stipend of $\$ 1,000$, is restricted to research work in the field of Cytology. Appointment is for a single year, with the possibility of reappointment. The fellowship is primarily for postdoctoral research. Inquiries and applications should be made to Dr. George T. Hargitt, Biology Building, Duke University, Durham, North Carolina.

## FELLOWSHIPS AND GRADUATE SCHOLARSHIPS IN FORESTRY

Information regarding special fellowships and graduate scholarships in forestry may be obtained before March 1, 1947, from the Dean of the School of Forestry, Duke University, Durham, North Carolina.

## APPOINTMENTS AS GRADUATE ASSISTANTS

A considerable number of appointments as teaching assistants or readers will be available for graduate students. The compensation will usually range from $\$ 450$ to $\$ 900$, depending upon the nature and amount of the work assigned. Assistants receiving $\$ 500$ or more will be registered for four fifths of a normal program of studies and accordingly will receive four fifths residence credit. Assistants in this classification will be charged four fifths of the tuition fee, and the same matriculation and minor fees as other students.

All holders of fellowships, scholarships, and graduate assistantships,
except as provided in the preceding paragraph, will be expected to pay the full tuition, matriculation, and minor fees which are paid by other graduate students. Even in cases where the fellow, scholar, or graduate assistant is given special permission to register for less than the maximum program allowed under his appointment, no reduction in fees will be granted. All appointments to scholarships, fellowships, and assistantships are for one academic year only. -

Information regarding fellowships, graduate scholarships, and graduate assistantships, together with application blanks, may be obtained from the Dean of the Graduate School, Duke University, Durham, North Carolina.

## SIGMA XI PRIZE AWARDS

The Society of Signa Xi offers each year a prize of $\$ 20$ for a Master's thesis or its equivalent and one of $\$ 40$ for a Ph.D. dissertation or its equivalent in the fields of Botany, Chemistry, Forestry, Mathematics, Medicine, Physics, Psychology, and Zoology. The student must be in residence during the academic year in which the prize is awarded. Students holding graduate appointments are eligible to compete, but instructors, part-time instructors, and interns are not eligible. The department concerned makes the nomination. Full particulars may be obtained from the secretary of the chapter. Nominations, recommendations, copies of theses, reports or other materials must be in the hands of the secretary on or before May 1.

## ADVANCED DEGREES

The degrees offered in the Graduate School of Arts and Sciences are Master of Arts (A.M.), Master of Education (M.Ed.), and Doctor of -Philosophy (Ph.D.). Most departments of the University are now prepared to give a full program of work leading to the degree of Doctor of Philosophy.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS LANGUAGE REQUIREMENTS

Candidates for the degree of Master of Arts are required to have a reading knowledge of a foreign language. There is reserved to the various departments the right to recommend specific languages that are acceptable to them. The candidate may satisfy the foreign language requirement either by examination or by transcript showing the completion of the third college year of the language, or he may satisfy the requirement by transcript showing the completion of the second college year in each of two acceptable languages.

## MAJOR AND MINOR SUBJECTS

As a prerequisite to graduate study in his major subject, a student must have completed a minimum of twelve semester hours of approved preliminary courses in that department and twelve additional semester hours either in that department or in related work. Many departments require eighteen semester hours of undergraduate credit. The student,
therefore, should read carefully the special requirements listed by each department.

To obtain the degree of Master of Arts, a candidate must complete satisfactorily twenty-four semester hours of graduate courses and a thesis. (The student who takes more than fifteen semester hours of work in the Summer Session must complete a total of twenty-seven hours of course work and a thesis.) The.credit for the thesis is six semester hours. Each candidate for the degree must select a major subject, in which the minimum requirement is twelve semester hours and the thesis. A candidate must take six semester hours of graduate work in a minor outside of but approved by the major department, and the remaining six semester hours in the major or minor fields or in a department approved by the major department and by the Graduate School Council. No undergraduate course may be credited toward the degree of Master of Arts.

## RESIDENCE REQUIREMENTS

The minimum residence requirement of candidates for the Master's degree is one academic year. Often a longer period of residence will prove necessary. Those students who take more than fifteen semester hours of courses in the Summer Session must fulfill a minimum residence requirement of thirty-three weeks.

Not more than six semester hours of credit toward the Master's degree may be given to graduates of Duke University or of other colleges or universities for acceptable graduate courses or research work completed elsewhere. Such credit shall not shorten the minimum period of full-time residence work required at Duke University. However, with the approval of the student's major department and the Dean of the Graduate School, the student with such credit may be permitted to take six semester hours of required undergraduate training, six semester hours of a required language, or to register for nine or twelve hours of thesis research instead of the usual six semester hours. No credit toward advanced degrees is given for university extension or correspondence courses.

All the work offered for the Master's degree, whether in the regular academic year or in summer sessions, must be completed within a period of six years from the date of beginning.

## THESIS

The Master's thesis is intended to demonstrate the student's ability to collect, arrange, interpret and report pertinent data or material on some special problem. Though desirable, a publishable contribution is not required. Nevertheless, the thesis is expected to exhibit insight into the problem and competence in the use of appropriate scholarly apparatus or research procedures.

The title of the thesis required in partial fulfillment of the requirements for the degree of Master of Arts or Master of Education must be filed with the Dean of the Graduate School on or before November 15 of the academic year in which it is expected that the degree will be conferred. The subject must receive the written approval of the Director
of Graduate Studies of the department in which the candidate has his major field of work and also of the professor under whom the thesis is being written.

Four (or, at the discretion of the department, three) bound typewritten copies of each thesis must be submitted to the Dean of the Graduate School in approved form on or before May 1 of the year in which the degree is conferred. All copies of the thesis should be brought to the Graduate Office before distribution to the examining committee. The examining committee is composed of three members of the Graduate Faculty appointed by the Dean of the Graduate School after consultation with the professor directing the thesis. Two copies of the approved thesis, the original and one carbon copy, are endorsed by the examining committee and returned to the Dean of the Graduate School, who deposits them in the University Library.

## EXAMINATION

Each candidate for the Master's degree is required to appear before the committee mentioned above for a final examination, which will approximate one and one-half hours in length and will be on the thesis and major field.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

The degree of Master of Education is granted to teachers or others engaged in educational service, upon the completion of the prescribed program of study. Candidates for the degree must have had two years of practical experience in teaching when the degree is conferred. This experience may be obtained at any time prior to entering upon candidacy for the degree, or it may be obtained concurrently with the period of study for the degree.

A preliminary requirement for admission to graduate study for this degree is the completion of a minimum of eighteen semester hours of approved undergraduate work in education, including courses in educational psychology and in the history of education, or educational sociology, or school administration. In addition, before being accepted as candidates for the degree, students must early in their residence (1) make a satisfactory score on a test of general ability and (2) demonstrate by examination that they can write acceptable English.

The degree of Master of Education may be earned either with or without a thesis.

Requirements without thesis. Students who elect not to write a thesis must earn thirty hours of course credit (thirty-three in the Summer Session). Twelve of these hours must be secured from the four basic required courses, Education 300, 304, 305, and 317. Besides taking these courses in the usual manner, students must also, toward the end of their residence, pass a comprehensive examination on the content and interrelationships among these four courses. Approval by the Director of Graduate Studies in Education is required before students are permitted to take the comprehensive examination. On this account notice of intention
to take the comprehensive examination must be filed with the Director of Graduate Studies three weeks before the announced date of the examination.

Exemption from not more than two of the four basic courses will be allowed students who can by examination show that they already possess adequate knowledge of the subject matter area or areas involved. Such students must, however, substitute other courses for those from which they are excused, thus still earning the minimum of thirty (or thirty-three) hours of course credit.

Other requirements: a departmental major of at least twelve hours, and an extradepartmental minor of at least six hours. (See page 52 of this Bulletin for suggestions with respect to minors.) Toward the end of their residence students must stand a comprehensive examination on their departmental major.

Requirements with thesis. Students are permitted to substitute a thesis for six hours of course credit, provided (1) that in the first fifteen hours of their work (twelve, in the Summer Session) they earn a "G" record on at least six hours, and (2) that they can present a thesis subject which has been approved by the member of the staff in Education who will supervise the thesis as well as by two other members of the staff. (Two of the three faculty members approving the subject must be resident members of the staff in Education.)

Besides the thesis, students must earn twenty-four hours of course credit (twenty-seven in the Summer Session). Six of these hours must be earned by taking any two of the basic courses, Education 300, 304, 305 , and 317. (Thesis students are exempted from the comprehensive examination which is required of non-thesis candidates.) Of the remaining eighteen hours (twenty-one in the Summer Session), six hours must be taken in some department other than Education. (See page 52 of this Bulletin for suggestions.) The other twelve (or fifteen) hours are taken in the departmental major. All other requirements, such as those relating to residence, preparation of thesis, thesis examination, etc., are the same as for the degree of Master of Arts.

## REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY THE DEGREE

The degree of Doctor of Philosophy is a research degree; it is not based merely upon the completion of a prescribed period of study or upon the obtaining of credit for a given number of courses. The granting of the degree will be based primarily upon evidence of high attainments in a special field of knowledge and upon the production of a thesis embodying the results of original research.

A student who plans to enter upon a program of work leading to the degree of Doctor of Philosophy should consult or enter into correspondence with the Dean of the Graduate School or the Chairman or Director of Graduate Studies of the department concerned. He will then be advised as to the possibility of securing the necessary instruction and supervision of research in the desired field.

## RESIDENCE

The normal period of resident graduate study is not less than three academic years. The candidate must spend at least either the last year in actual residence at Duke University, or the first two years. A substantial amount of course work in addition to the thesis will be required. A student whose undergraduate work is insufficient in amount or unsatisfactory in character may expect to spend additional time in preliminary courses essential as a basis for the graduate work he proposes to undertake.

Credit for one year of work done in summer sessions may be given with the approval of the Graduate School Council and the department in which the student takes his major work. Except in unusual cases, graduate work of fragmentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence.

## PROGRAM OF STUDY

In the student's second year of graduate work a committee of five members is appointed by the Dean to formulate in consultation with the student the remainder of his doctoral program of study. The professor in charge of his research or the Chairman or Director of Graduate Studies in the student's major department serves as chairman. This committee, with occasional necessary changes, serves also as the examining committee on the student's preliminary and final Ph.D. examinations.

The program recommended by the committee is submitted to the Dean of the Graduate School for his approval on the regular form provided for that purpose. The student must select a major field and one or more minor related fields. When a department offers instruction in a sufficient variety of subjects and the needs of the individual student seem to require it, the Dean of the Graduate School may permit a major and minor to be taken in the same department. In all cases the student is encouraged to select a minor outside the major department.

## FOREIGN LANGUAGES

Normally a reading knowledge of both French and German is required. On the recommendation of the department in which the candidate is doing his major work and with the approval of the Dean of the Graduate School, he may be permitted to substitute some other language for either French or German. This language, however, must be shown to have a definite relation to the candidate's program of work for the Doctor's degree. No person may appear for his preliminary examination without having satisfied the language requirements for the Doctor's degree. The department in which he takes his major work may indicate preference as to the language in which the student shall first be examined. Foreign language examinations are conducted by the appropriate language department in conjunction with the department in which the student has his major field of work.*
*See University Calendar, pp. 5-6.

## PRELIMINARY EXAMINATION

Toward the end of the second full year of graduate work (or in special cases early in the third year), a preliminary examination of each candidate will ordinarily be held covering the general field of his studies. This examination will be conducted by the committee in charge of the student's work and will be either oral or written, or both as the committee may determine. A student who passes the examination will be recognized as a candidate for the Ph.D. degree. The examination on his minor subject or subjects will ordinarily be held at the time of his preliminary examination. Graduate students who transfer to Duke University to work toward the degree of Doctor of Philosophy and who have already passed the preliminary examination for that degree at another university must take the regular preliminary examination at Duke University.

If a student fails on his first examination, he may make a second attempt after six months upon the recommendation of his committee and the approval of the Dean of the Graduate School. Two failures on this examination make the student ineligible to continue work toward the Ph.D. degree at Duke University.

## THESIS

The thesis for the Ph.D. degree must be a contribution to knowledge. The subject should receive the written approval of the Director of Graduate Studies of the department in which the candidate has his major field of work and also of the professor under whom the thesis is being written. The title of the thesis must be filed with the Dean of the Graduate School on or before October 15 of the academic year in which the candidate desires to take the final examination for his degree.

The thesis must be completed to the satisfaction of the professor under whom it is written, and four bound, typewritten copies in approved form must be deposited with the Dean of the Graduate School on or before April 15 if the student desires to be examined on the thesis in the same academic year. The bound copies of the thesis should contain at the end an autobiographical sketch of the student. The title page must be approved by the major department and by the Dean of the Graduate School. The student should bring to the examination ten copies of the autobiographical sketch and ten copies of a brief summary of the thesis. Two copies of the approved thesis, the original and one carbon copy, are endorsed by the examining committee and returned to the Dean of the Graduate School, who deposits them in the University Library.

Before the degree is conferred the candidate must deposit with the Treasurer of the University a special thesis fee of fifty dollars in cash. If the thesis is published in a form satisfactory to the Dean of the Graduate School and to the professor under whom it is written within a period of three years from the date the degree is granted, the fee of fifty dollars is returned. Ten copies of the published thesis must be filed in the Graduate School Office as provided by regulations of the Graduate School Council. A suitable abstract, or one or more articles, may be accepted as satisfying the publication agreement, If the thesis is not
published within the three-year period in a form accepted by the Dean of the Graduate School and by the professor under whom it is written, the deposit of fifty dollars is forfeited, becoming the property of the University. The forfeited thesis fees are credited to a special Thesis Fund which may be used for the publication of such theses as appear to the Graduate Council as worthy of subsidization.

## FINAL EXAMINATION

The final examination on the thesis and on the related subject matter in the major or the minor fields will be oral. Approximately one year must elapse between the dates of the preliminary examination and the final examination. Two failures on this examination make a student ineligible to continue work toward the Ph.D. degree at Duke University. The second examination may be given only upon the recommendation of the professor in charge of the thesis and the approval of the Dean of the Graduate School.

## THE GRADING OF GRADUATE STUDENTS

Members of the Faculty are expected to report the grades of graduate students not later than February 10 for the first semester and not later than June 6 for the second semester on the cards provided for that purpose.

In the grading of graduate students, " S " or satisfactory shall represent work of an acceptable character, " $G$ " or good shall be the next higher grade, and " $E$ " or exceptional shall be the highest grade. " $F$ " or failing indicates that the grade of the student is below passing. In a course in which both graduates and undergraduates are enrolled, the grade " S " shall represent approximately an 80 per cent rating. A mark of "Incomplete" may be given when a student has failed, for an acceptable reason, to complete some portion of the required work in a course in which his standing is generally satisfactory. Unless a report is made within one year that the course has been satisfactorily completed, all credit will be lost. No residence credit is granted for that part of a student's program which he fails to complete in a satisfactory manner.

## GENERAL REGULATIONS

Not more than twenty-five students are permitted in a class giving graduate credit, nor are undergraduate students below the Senior year permitted in such a class. Exceptions to these rules may be made by special permission of the Graduate School Council on recommendation of the department concerned.

Candidates for advanced degrees should notify the Graduate School Office by April 1 of each year whether or not they expect to complete the requirements for the degree in time for the Commencement in May.

## THE LIBRARY

The total number of volumes in the University Libraries on June 30, 1945, was 722,613 volumes. These were distributed among five main units: the General Library with 498,772 volumes; Divinity Library,

37,623 volumes; the Hospital (Medical) Library, 42,385 volumes; the Library of the Law School, 78,131 volumes; and the Woman's College Library, 65,702 volumes.

The work of students in the Graduate School is carried on primarily in the General Library. A Reading Room, which contains the reference material most in demand, provides a quiet and convenient place for study. Graduate students are also admitted freely to the stacks. Within the stacks are located 108 carrells or desks which are assigned on an annual basis, preference being given to students in the Graduate School. To facilitate work in the natural sciences, the General Library maintains departmental libraries adjacent to laboratories for the Departments of Chemistry, Plyssics, and Biology. Departmental libraries are also maintained for the College of Engineering and the School of Forestry.

In the field of mathematics and the sciences particular attention has been given to securing files of important journals and serials. A checklist of all scientific periodicals and serials on the University campus shows a total of approximately 2,460 files in a more or less complete form. The total number of current periodicals received by subscription, exchange, and gift in 1944-45 was 3,061 , exclusive of duplicates.

In the field of the social sciences and the humanities every effort has been made to secure the basic collections of source material as well as the more important publications of criticism and discussion. This has been done by the acquisition of such sets as the Die Griechischen Christlichen Schriftsteller der ersten drei Jahrhunderte, Corpus Scriptorum Ecclesiasticorum Latinorum, Migne's Patrologia, the Corpus Scriptorum Historia Byzantiae, the Monumenta Germaniae Historica, the Acta Sanctorum, the Corpus Reformatorum, the catalogues of the manuscript collections of the larger European libraries, complete files of the publications of the League of Nations, the International Labor Office, and many others. The endeavor to select the more important items in the various fields of graduate work has been supplemented by the purchase of a number of special collections and libraries. Among the more important of these might be mentioned a Peruvian library of approximately seven thousand books and manuscripts; a library of several thousand volumes dealing with Brazil; the Robertson library of Philippiniana: the Lanson Collection of French literature consisting of twelve thousand books and monographs; a Goethe collection of one thousand volumes; a Scandinavian collection of three thousand volumes; a collection of about five thousand items of early Americana, dating from the seventeenth century to 1826 ; the Holl church history library dealing primarily with the period of the Reformation; a collection of many thousands of church minutes and records of American denominational history; two collections of eighteentlo-century English poetry and prose totaling about five thousand items; two special collections, one dealing primarily with Byron and the other with Coleridge, containing a number of manuscripts, annotated copies, and first editions; a collection of material on the Fourier movement; and the Thomas Collection of books on Chinese history and culture. Special mention should be made of the George Washington Flowers

Collection of manuscripts, books, newspapers, and pamphlets dealing with all phases of Southern history, and of the Trent Collection of Walt Whitman books and manuscripts.

## Public Documents

The importance of public documents as fundamental source materials for the social sciences and as containing also some of the most important work in the field of applied science is being clearly recognized, and an excellent start has been made toward a comprehensive collection of this material. The Library has been a depository for Federal documents since 1890. State documentary publications are also being systematically collected in co-operation with the University of North Carolina. Of European public documents a representative collection has been secured. Among the more notable items might be mentioned the British Parliamentary Papers (since 1925), Calcudar of State Papers, the Acts of the Privy Council, Hansard's Debates, the Débats Parlementaires of the French Senate and Chamber of Deputies, the Journal Officicl de la République Française, the Bullctin des Lois de la République Française, the Reichsgesetzblatt, the Verhandlungen des Reichstages, the Atti of the Italian Parliament, and the Diario of the Spanish Cortes. The public documents of the Latin-American countries, especially Argentina, Brazil, Chile, and Peru, form one of the strongest units of the Library.

Under this heading should be mentioned also the Library of Professor Louis Strisower, Sometime President of the Institute de Droit International, which contains approximately five thousand volumes dealing with international law. The volumes date from the seventeenth century to the present and contain some especially valuable periodical files and rare books.

## Publications of European Academies

The Duke University Library has the publications of many of the European academies, containing monographs in most of the fields of knowledge and constituting important sources for the research programs of graduate students and Faculty. The sets comprise about two thousand volumes and include Preussische Akademic der Wisscnschaften (Berlin) ; Gesellschaft der Wissenschaften zu Göttingen; Sächsische Akademie der Wissenschaften (Leipzig); Bayerische Akademic der Wissenschaften (Munich); Heidelberger Akademie der Wissensehaften; Akademie der Wissenschaften (Vienna) ; Académie des scicuces (Paris); Académie des inscriptions et belles-lettres (Paris); Académic des sciences morales et politiques (Paris); Accademia nazionale dei lincei; Accademia pontificia dei nuova lincei (Rome); Real academia española (Madrid) : Academia de la historia (Madrid) ; Akademia nauk (Leningrad) ; Dansk videnskabernes selskab (Copenhagen) ; Norsk videnskapsakademi i Oslo; Akademie van Wetenschappen (Amsterdam); Académic royale des sciences. des lettres et des beaux-arts de Belgique (Brussels) ; Akademija umiejetnosci (Krakow).

## Newspapers

The Library collection of newspapers contains around twelve thousand volumes. Practically all states of the Union are represented, although the major part of the collection is from along the Atlantic seaboard. Of the eighteenth-century items, the states best represented are Massachusetts, Maryland, New York, Rhode Island, Virginia, North Carolina, South Carolina, and Georgia. There is an excellent collection of nine-teenth-century New England papers. The World. War period is unusually strong with about twenty-eight titles practically, complete for 1914-19. There is a group of papers from Germany in the years just after the World War. Special emphasis has been placed on the Southern States, and there are numerous volumes of papers from North Carolina, South Carolina, and Virginia, representing the Colonial period, the AnteBellum period, and the Civil War period. The current subscription list of eighty-one titles represents American public opinion and contains fourteen important foreign titles.

## Manuscripts

The manuscript collection now contains 888,879 items relating chiefly to the South Atlantic region. Most numerous are records of military, social, and economic life in the Confederate period including letters, diaries, rosters, military reports, statutes of the Confederate Congress, court records, and papers of various departments of the Confederate Government. Outstanding among the many papers providing a well-rounded picture of life in the South during the nineteenth century are original census returns of Georgia, Kentucky, Louisiana, and Tennessee for 1850 and 1860. The collection, most copious in the field of history, contains information on all phases of social and economic life as well as politics. Numerous large collections bear particularly on the history of Alabama, Georgia, North Carolina, South Carolina, and Virginia. Of interest for historical studies are the papers of P. G. T. Beauregard, John C. Calhoun, David Campbell, Robert Carter, Clement C. Clay, Henry Clay, William H. Crawford, John J. Crittenden, Jefferson Davis, Nathanael Greene, Andrew Jackson, Robert E. Lee, Alfred T. Mahan, Alexander H. Stephens, and others. The field of American literature is represented by papers of Thomas Holley Chivers, John Esten Cooke, Clara V. Dargan, Paul Hamilton Hayne, George Frederick Holmes, Alexander B. Meek, Thomas Nelson Page, Augustin L. Taveau, and Walt Whitman. Among the non-Southern materials there are interesting groups of papers centering on George Moore, the Rossettis, Robert Southey, and Tennyson. Of the medieval manuscripts, consisting chiefly of lectionaries and copies of the New Testament, one thirteenth-century New Testament in Greek is noteworthy. The Library has recently acquired the official files of the Socialist Party of America extending from 1901 to 1938, and a collection of the papers of George Holyoake.

## Exchange Privileges with the Library of the University of North Carolina

The libraries of Duke University and of the University of North Carolina have arrangements for the fullest exchange of privileges and resources. Each library contains a catalogue of the contents of the other, and books requested from the other library are supplied through a delivery service which operates weekly. Faculty members and graduate students may secure cards admitting them to the stacks of the other library. The Library of the University of North Carolina contains approximately 459,558 volumes, besides a large collection of manuscripts relating to Southern history. Under this arrangement more than $1,182,000$ volumes are available to students in the combined libraries.

## SCIENCE LABORATORIES biological laboratories

The Biology Building on the West Campus contains three refrigerated rooms, an incineration room, a workshop, an aquarium room, five animal rooms connected with outside yards, and eight dark rooms. Special laboratories are provided for advanced work in plant and animal physiology, parasitology, cytology, taxonomy, bacteriology, ecology, histology, mycology, anatomy, embryology, endocrinology, entomology, forest soils, and wood anatomy and properties. A 300 -acre arboretum is being developed adjacent to the campus with Dr. E. S. Harrar in charge. A greenhouse gives adequate space for experimental work and propagation. There is an herbarium of some fifty thousand specimens of all plant groups with a large representation of the Southern flora. Dr. H. J. Oosting is Curator of the Herbarium, and Dr. I. E. Gray is Curator of the Zoological Museum. On the East Campus, laboratories are provided for undergraduate women, and there is a small greenhouse near the Science Building. Laboratories and rooms for students doing research are equipped with vacuum, compressed air, direct and alternating current, gas, and running water. Proper equipment and supplies for biological work are available.

The Duke Forest and its streams provide excellent collecting grounds. The Duke Forest is under the management of the School of Forestry. Duke University is situated in the Piedmont region, between the mountains and the coastal plain. This gives easy access to a varied flora and fauna. North Carolina is the home of the tulip poplar, holly, rhododendron, mountain laurel, flowering dogwood, several species of insectcatching plants, cypress, and other interesting plants. Among the animals are a varied assortment which range from marine to mountain species. In the forest about the University there is a great variety of small game.

The Duke Marine Laboratory at Beaufort, North Carolina, provides facilities for work on plants and animals in and near the ocean. It is situated on Piver's Island, adjacent to the Biological Laboratory of the United States Fish and Wildlife Service. Dr. A. S. Pearse is Director and Dr. Harold J. Humm is Assistant Director.

## PHYSICAL LABORATORIES

The physical laboratory contains approximately an acre of floor space which is devoted to instruction and research. In addition to the usual lecture and elementary laboratory facilities, laboratories are provided for work in electrical measurements, optics, atomic physics, and advanced measurements in general physics.

Rooms are provided for various instruments of research in spectroscopy, such as a 10 -foot concave grating which is used in conjunction with a 32 -meter-long stainless steel pipe for study of weak absorption; a vacuum spectrograph with a 2 -meter glass grating; an apparatus for the study of the Raman spectra of gases photographed with a large 3-prism glass f 2.5 glass Zeiss spectrograph and various other spectroscopic instruments, such as the Hilger E-1, Moll microphotometer, etc.

A well-equipped shop operated by trained instrument makers makes possible the development of instructional and research apparatus. A shop is also provided for the use of the staff and graduate students.

## CHEMICAL LABORATORIES

Graduate work in chemistry is carried on in a modern building with a floor area of about 57,000 square feet. Of this total space a large proportion is available for research and advanced teaching. There are twentyfive double research rooms completely equipped with the usual services. In addition, a number of specially designed rooms are available for present or future research, such as a photographic room, constant temperature room, distillation room, combustion room, bomb room, and rooms equipped with dielectric constant and magnetic measurements.

A glass-blowing room and a well-equipped shop, operated by a competent mechanic, provide facilities for the construction of special apparatus and for the repair and maintenance of instruments.

## MEDICAL SCHOOL

In the School of Medicine elaborate facilities are provided for postgraduate research in the various branches of medical science. The Departments of Anatomy, Bacteriology and Immunology, Biochemistry, and of Physiology, Pharmacology, and Nutrition offer certain courses and adequate research facilities to students in the Graduate School of Arts and Sciences. The use of the Duke Hospital Library is available to all graduate students.

## THE DUKE FOREST

Through placing the Duke Forest under intensive management for forestry purposes, substantial progress has been made in developing the educational work and research in forestry. The Duke Forest consists of approximately seven thousand acres of land, most of which is adjacent and easily accessible to the University campus. Situated in the lower Piedmont region and composed of second-growth shortleaf pine, loblolly pine, and hardwoods, the Forest is representative of the various types of timber growth and soils found throughout the region.

The proximity of the Forest to the laboratories, greenhouses, and
library facilities of the University provides an excellent opportunity for advanced study and research in forestry. Research, particularly in the fields of silvics, forest soils, silvicufture, forest management, properties of wood, forest-tree physiology, forest entomology, and forest pathology, is well under way. Several members of the Botany and Zoology staffs are also engaged in research in the Duke Forest.

For additional information see the Bulletin of the School of Forestry.

## ENCOURAGEMENT OF RESEARCH

The President of the University appoints annually a University Council on Research. The members of this Council are chosen from the Faculties of the Schools of Medicine and Law, the Divinity School, and the Graduate School of Arts and Sciences. In May of each year the Council on Research receives written applications from members of the Faculty for subsidies to be used in the following fiscal year to aid them in carrying out research projects. Stipends are granted for the employment of research assistants, for the purchase of books, and for apparatus, supplies, and equipment. Each member of the Faculty to whom a research stipend is granted must make a written report within twelve months to the Council concerning the progress of the investigation for which the stipend was allowed.

## SPECIAL LECTURES

During each academic year the University Lecture Committee arranges for a number of special lectures of value to graduate students interested in various fields of knowledge. The Woman's College Lecture Series brings other guests to the campus. In addition to these lectures, a number of distinguished speakers appear each year on the programs of various schools and departments of the University.

Among the guest lecturers in 1945-46 were Mr. J. Russell Wiggins, Editor of the St. Paul Pioneer and Dispatch Paper, and. Mr. Felix Morley.

## THE UNIVERSITY PRESS

In 1897 Trinity College began sponsoring the publication of "The Papers of the Trinity College Historical Society," which was distributed to members of the Society and on exchange to other institutions. This series was the first publishing venture of the College. In 1902, the 9019, an honor scholastic society on the campus, founded The South Atlantic Quarterly, which is now published by the Press.

In 1921 the Trinity College Press was established to publish the results of research engaged in by the Faculty and such other works as were approved by a board of editors appointed for the purpose. In 1925, with the acceptance of the benefaction of James B. Duke, Trinity College became one of the undergraduate colleges of Duke University, and the following year the University Press was organized to succeed the Trinity College Press.

One of the first steps of the new organization was to revive The

Hispanic American Historical Review, which had been founded and published from 1918 to 1922 by a group of scholars interested in Hispanic America. Since 1926 its publication has been continued without interruption, and its mission has been supplemented by many studies dealing with the history, politics, and foreign relations of the Hispanic nations of the New World. In 1929 American Literature was begun with the co-operation of the American Literature Group of the Modern Language Association. This journal was followed in 1931 by Ecological Monographs, a quarterly sponsored by the Ecological Society of America, to take care of papers too long for inclusion in Ecology. Character and Personality, since 1945 the Journal of Personality, an international quarterly appearing simultaneously in the United States and Great Britain, was founded in 1932 as a medium for the publication of studies in fields related to this phase of psychology. In 1935 the Press started the publication of the Duke Mathematical Journal, with the co-operation of the Mathematical Association of America, and in 1937 The Journal of Parapsychology for the publication of the results of research in extrasensory perception and related topics. For the Southern Association of Colleges and Secondary Schools, the Press publishes The Southern Association Quarterly, the official organ of the Association. The Law School of Duke University sponsors Law and Contemporary Problems, presenting a symposium of some important legal problems in each number.

Besides its books, monographs, and regular quarterly publications the Press issues "Contributions to Psychological Theory" and "Duke University Research Studies in Education," the latter sponsored by the Department of Education of the University. It publishes also the Bulletin of the University Marine Laboratory at Beaufort.

Since its organization the Press has offered to the public the products of scholarly research to the number of more than one hundred and fifty volumes. It has not limited its scope to any one field or to any one group of authors. In addition to the many works submitted by members of the Faculty, a great number of titles by authors without a connection with the University have been issued under the imprint of the Press.

In the broadest sense, the present policy of the Press is to give to the public any scholarly work which, because of the merit of its contents, its style, and its general value, deserves publication.

## APPOINTMENTS OFFICE

The University maintains an Appointments Office, whose services are extended to all graduate students without charge. Although placement of students in employment is most frequent in the fields of high-school teaching and industrial or commercial work, graduate students interested in college teaching or other activities should register with the Office in order to make available in one center information respecting their various qualifications for the employment they seek.

## GRADUATE STUDY IN THE SUMMER SESSION

The Duke University Summer Session is normally divided into two
consecutive terms of six weeks each. In 1946, however, the first term begins June 27 and ends August 8 and is followed by an extended term of only three weeks ending August 29. Graduate students who wish to work toward advanced degrees in the Summer Session, particularly in Education, English, History, and Mathematics, will ordinarily find a wide selection of courses offered by members of the Duke Faculty and by visiting professors. Other departments offering sequences of work leading to the Master's degree in a series of summer terms are Botany, Economics, French, Physics, Political Science, Psychology, Religion, Sociology, Spanish, and Zoology. Students in Botany and Zoology have unusual opportunities for research and study at the Duke Marine Labcratory near Beaufort, North Carolina, besides regular course offerings at the University. The offerings for 1946 are somewhat restricted by reconversion conditions.

Graduate students who present more than fifteen semester hours earned in summer sessions toward the Master's degree must meet a minimum residence requirement of thirty-three weeks. No graduate student may register for more than six semester hours of credit in one summer session of six weeks. All the work presented for the Master's degree must be completed within six years from the date of beginning. Work completed earlier is not accepted toward either the course or residence requirements. Not more than one year of summer work is accepted toward the residence requirements for the Ph.D. degree.

A bulletin containing information regarding the graduate courses to be offered during the summer of 1946 may be obtained by addressing the Director of the Summer Session, Duke University, Durham, N. C. Summer Session graduate students who desire to be admitted to graduate courses to work toward advanced degrees should make application to the Dean of the Graduate School by June 1 for admission to the first summer session and by July 15 for admission to the second summer session. They should also request the registrar of the college(s) attended to send to the Dean of the Graduate School an official transcript of their undergraduate record.

## COURSES OF INSTRUCTION

Unless otherwise stated, all courses listed in this catalogue will be given on the West Campus. For those courses offered on the East Campus, (E) will be inserted following the description. In general, courses with odd numbers are offered in the first semester, those with even numbers in the second semester. Some seminars bearing a single number continue throughout the year; in such cases it is indicated whether the semester hours of credit apply to the year or to each semester. All courses are offered subject to the exigencies of the national emergency.

## DIVISION OF ANCIENT LANGUAGES AND LITERATURES

PROFESSORS CLARK, ROGERS AND STINESPRING; ASSISTANT PROFESSORS TRUESDALE AND WAY; DR. ROSE
Three types of courses are offered for graduate study by the Greek Department, and one representative of each type is given every year. One group of courses is devoted to extensive reading in the six departments of classical Greek literature; another deals with Greek archaeology, dialects, and inscriptions; and the third is a series of seminars covering four years. The courses of each type rotate from year to year in a fixed order for the most part. In 1946-47 the courses offered are 201-202, 247-248, and 301-302.

The requirements for admission to graduate work is four years' study of the Greek language or twenty-four semester hours of course credit. A student with fewer credits may be admitted if he has undoubted ability.

> FOR SENIORS AND GRADUATES

201-202. Greek Tragedy.-6 s.h.
Dr. Rose
203-204. Homer.-Odyssey. Pindar and Bacchylides. 6 s.h.
Assistant Professors Truesdale and Way
205-206. Greek Historians.-6 s.h.
Dr. Rose
207-208. Greek Orators.-6 s.h.
Assistant Professor Way
209-210. Plato.-Symposium, Protagoras, and parts of the Republic. 6 s.h. Assistant Professor Way

211-212. Aristophanes.-6 s.h.
Dr. Rose
(Only one of the six courses listed above is offered each year.)
243. Athenian Topography.-The topography and monuments of ancient Athens. 3 s.h.

Assistant Professor Way
244. Greek Epigraphy.-Lectures on the history of the alphabet and the development of the local Greek alphabets, followed by extensive reading of inscriptional texts in facsimile. 3 s.h. Assistant Professor Way
245. Greek Dialects.-A linguistic study of transliterated inscriptions illustrative of the major Greek dialects. The interrelations of the dialectal forms are examined, with reference, where possible, to their origin in proethnic Greek. 3 s.h. Assistant Professor Way
246. Greek Historical Inscriptions.-The more valuable historical inscriptions are read in chronological order and interpreted in their general bearing upon the course of Greek history. 3 s.h.

Assistant Professor Way

247-248. Greek Archaeology.-Advanced course in the general field for Seniors and Graduates, comprising architecture, sculpture, vases, and the minor arts. 6 s.h.

Assistant Professor Way
(Of the courses numbered from 243 to 248 , only two semester-courses are offered each year.)
257. Social and Cultural History of the Hellenistic World from Alexander to Augustus.-Lectures, readings, and discussion. 3 s.h. Professor Rogers

## FOR GRADUATES

The more advanced work of the graduate department is done in the seminar. One author or group of authors forms the center of study each year. Seminars are offered in Aristophanes (301-302), The Greek Historians (303-304), The Attic Orators (305-306), and The Greek Tragic Poets (307308). These run through a cycle of four years. In 1946-47 the work will be:

## 301-302. Seminar in Aristophanes.-6 s.h.

Graduate students of Duke University may attend the American School of Classical Studies in Athens, Greece, without charge for tuition, and they are eligible to compete for the fellowships that are offered annually by the Sehool. These consist of two felloweships in Greek archaeology, and one in the language, literature, and history of ancient Greece, each with a stipend of $\$ 1,300$. They are awarded mainly on the basis of examinations held in the beginning of February of each year.

## LATIN AND ROMAN STUDIES

The program of the Latin Department seeks to provide for two different kinds of student: (a) those who intend to pursue graduate study only to the attainment of the Master of Arts degree, and (b) those who desire to continue research in the field of classical studies and who contemplate working toward the degree of Doctor of Philosophy. Students of the former class should have not less than eighteen semester hours of credit in Latin, over and above the four-year high-school course in Latin or its college equivalent, and an elementary acquaintance with German and French. Students looking to the doctorate should have in addition to the above preparation at least twelve semester hours of credit in Greek and will ordinarily take their minor in Greek. They must have a reading knowledge of German and French. The ability to read Italian will also prove valuable. The Department reserves the privilege of rejecting applications of students who, while meeting these requirements literally, do not in their past records show promise of success in more advanced study.

FOR SENIORS AND GRADUATES

## 201. Roman Fiction.

## 202. Latin Christian Writers.

203-204. Roman Epic: Ennius, Vergil, Manilius, Lucan, Flaccus, Statius, Silius.-A study of this literary genre, and its development by Roman writers; extensive reading of the Roman epics. Not offered if 205-206 is given. 6 s.h. (E)

205-206. Roman Drama: Plautus, Terence, Seneca.-A rapid reading course in which five plays of Plautus, three of Terence, and two of Seneca are studied. 6 s.h. (E)

207-208. Roman Philosophy.

## 209-210. Vulgar Latin: Introduction to Romance Philology.

211-212. Roman Oratory.-A survey of the history of Roman oratory, centering about the Brutus of Cicero and Tacitus' Dialogus. 6 s.h.
215. Introduction to Roman Art and Archaeology.
216. Topography and Monuments of Ancient Rome.

251-252. Roman Life.
258. Social and Cultural History of the Graeco-Roman World.-The Roman Empire as the trustee of Hellenism and Christianity, and its own original contributions to modern civilization; lectures, readings, and discussions. This course continues Greek 257 and will not be separately credited. 3 s.h.

Professor Rogers

## 281-282. Roman Historical Literature.

283-284. Roman Law.-Readings in the original sources with parallel study of modern exposition of the Roman legal system. 6 s.h.

Professor Rogers

## FOR GRADUATES

309-310. Sight Reading and Composition.-Comprehensive reading in special fields of Roman Literature not included in other courses, with which the writing of Latin will be correlated. 6 s.h. Dr. Rose

311-312. Latin Epigraphy.-Introduction to Latin epigraphy, with considerable practice in reading short inscriptions, first semester; and this is followed by a study of important historical inscriptions including the Monumentum Ancyranum, second scmester. 6 s.h.

Professor Rogers
Seminars: Various authors or historical periods are selected from year to year as a basis for training in criticism and research. Seminars are offered in the following: Catullus (301-302), Roman Historians (331-332), Roman Provincial Administration (341-342), The Reign of Tiberius (343344), Martial (351-352), Horace (361-362), Lucretius (371-372), and Cicero's Public Career (391-392). The seminar planned for 1946-47 is:

331-332. Roman Historians.-6 s.h. Professor Rogers

## LINGUISTICS

FOR GRADUATES
375-376. Greek and Latin Linguistics.-A comparative study of the development of forms and flexions in Greek and Latin. 6 s.h.

Dr. Rose
385-386. Elementary Sanskrit.-An introductory course to the classical language and literature. The linguistic importance of Sanskrit will be stressed, especially with reference to Greek, Latin, and Germanic. 6 s.h. Dr. Rose

## semitics

## FOR SENIORS AND GRADUATES

201-202. First Hebrew.-The principles and structure of the Hebrew language, with translations of selected Old Testament narratives. 6 s.h.

205-206. Elementary Arabic.-Introduction to the classical language and literature, with some attention to the modern colloquial idiom. 6 s.h.

Professor Stinespring
207-208. Second Hebrew.-Samuel or Kings the first semester; Isaiah the second. 6 s.h.

Professor Stinespring

## FOR GRADUATES

304. Aramaic.-A study of the Aramaic portions of the Old Testament and selected passages from the Targums, Midrashes, and Talmuds. 3 s.h.

Professor Stinespring
305. Third Hebrew.-A study of late Hebrew prose, with readings from Chronicles, Ecclesiastes, and the Mishnah. Hours to be arranged. 3 s.h.

Professor Stinespring
309. History of the Ancient Near East.-A survey of the early civilizations of Egypt, Palestine, Syria, and Mesopotamia in the light of Biblical archaeology. 3 s.h.

Professor Stinespring
315. Judaism at the Beginning of the Christian Era.-A study of Judaism from the time of Ben Sirach to the writing of the Mishnah. 3 s.h.
320. Rabbinic Literature.-Critical readings in Rabbinic Literature of the early centuries of the Christian Era. 3 s.h.

## related courses in other departments

Philosophy 217. Philosophy of Aristotle.-3 s.h.
Assistant Professor McLarty
Religion 217. The New Testament in Greek.-Extensive reading of the Greek critical text, with special consideration of variant interpretations. 3 s.h. Professor Clark
Religion 218. Galatians and I Corinthians.-A detailed study of two of Paul's major epistles, based on the Greek text. 3 s.h. Professor Clark

Religion 220. I Peter and the Gospel of John.-A detailed study of two of the non-Pauline writings of the New Testament, based on the Greek text. 3 s.h.

Professor Clark
Religion 313. The Apostolic Fathers.-A study of the Christian development from Clement of Rome to Polycarp, with readings of the Greek text. 3 s.h.

Professor Clark
Religion 314. Early Christian Apologists.-A study of Christian apologetic in the second century, with readings of the Greek text. 3 s.h.

Professor Branscomb
Religion 316. Hellenistic Religions at the Beginning of the Christian Era. -3 s.h.

Professor Clark
Religion 318. Text of New Testament.-A study of the materials for the reconstruction of the text, the principles of textual criticism, and the history of the text. Practical exercises in the use of manuscripts and facsimiles will be given. 3 s.h.

Professor Clark
Under the terms of a co-operative agreement graduate students of Duke University may, with the approval of the chairman of their major department, take any graduate course offered by the Departments of Greek and Latin of the University of North Carolina by the payment of a nominal fee. A list of these courses will be sent upon request.

## BOTANY

PROFESSOR bLOMQUIST, CHAIRMAN-203 BIOLOGY bUILDING; PROFESSOR KRAMER, director of graduate studies- 04 biology ; professors harrar and WOLF ; ASSOCIATE PROFESSORS ADDOMS AND OOSTING; assistant professors anderson and perry
For admission to candidacy for the Master of Arts degree in botany, students must have completed a minimum of at least eighteen semester hours of biological science, of which six semester hours must be in courses in botany of Junior or Senior grade. The botanical work must have been of good quality. As an additional preparatory basis, it is highly desirable that the student shall have had a year of chemistry and a year of physics. Students who have not met these requirements may be admitted provisionally and may carry courses for undergraduate credit, if permission is given by the instructor. A total of twenty-four hours of advanced courses, eighteen of which are in botany and six in the minor department, and a thesis are required for the Master of Arts degree.

## FOR SENIORS AND GRADUATES

202. Genetics.-The principles of heredity, their cytological basis, and their bearing on other fields of biology. Laboratory work involves experimental breeding of the fruit fly and interpretation of data from the breeding of plants. Offered in alternate years. Prerequisites: one year of botany, zoology, or equivalent, and college algebra. 4 s.h.

Assistant Professor Perry
203. Plant Cytology.-A study of the structure and organization of plant cells in relation to growth, reproduction, and especially heredity. Offered in alternate years. Prerequisite: one year of botany. 4 s.h.

Assistant Professor Anderson
204. Advanced Plant Anatomy.-The structure of vegetative and reproductive organs of seed plants, including a consideration of seedling anatomy. Special reference is made to plants of economic importance. Offered in alternate years. Prerequisite: Botany 55 or equivalent. 4 s.h.

Associate Professor Addoms
216. Botanical Microtechnique.-Studies in methods of preparing temporary and permanent microscopical slides; theory of staining; the use of the microscope, especially microscopical measurements, drawing, and photomicrography, botanical photography, and lantern slides. Prerequisite: two semesters of botany. 4 s.h.

Assistant Professor Anderson
221. Structure and Classification of Fungi.-Prerequisite: two semesters of botany. 4 s.h.

Professor Wolf
225-226. Special Problems.-Students with adequate training may do special work in the following fields. Credits to be arranged.
(a) Bacteriology, Mycology, and Plant Pathology.

Professor Wolf
(b) Cytology.

Assistant Professor Anderson
(c) Ecology.

Associate Professor Oosting
(d) Genetics.

Assistant Professor Perry
(e) Morphology and Anatomy of Higher Plants.

Professor Harrar and Associate Professors Addoms and Oosting
(f) Morphology and Taxonomy of Lower Groups. Professor Blomquist
(g) Physiology. Professor Kramer and Associate Professor Addoms
(h) Plant Microchemistry.

Associate Professor Addoms
(i) Taxonomy of Higher Groups.

Professor Blomquist
252. Advanced Plant Physiology.-The physicochemical processes and conditions underlying the physiological processes of plants. Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 4 s.h.

Professor Kramer
255. Advanced Taxonomy.-A study of the historical background of plant taxonomy, modern concepts and systems of classification, nomenclatorial problems and the taxonomy of specialized groups. Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h. Professor BlomQuist
256. Field Ecology.-An ecological survey of local vegetation, including theory and practice in the use of instruments for precise habitat studies, and analysis of community and successional relationships. Offered in alternate years. Prerequisites: Botany 1,2 and 52 , or equivalent. 4 s.h.

Associate Professor Oosting

## FOR GRADUATES

305. Plant Geography.- The distribution and limits of vegetation types with special consideration of the plant communities of North America. Offered in alternate years. Prerequisite: Botany 156 or equivalent. 4 s.h.

Associate Professor Oosting
310. Structure and Classification of Bryophytes and Pteridophytes.-The morphological and systematic characteristics of mosses, liverworts, ferns, and fern allies. Prerequisite: two years of botany. 4 s.h. Professor Blomquist
311. Structure and Classification of Algae.-The morphological and ecological characteristics of the common freshwater and marine species and the principles underlying their classification. Collecting, identification, and the making of permanent microscopical preparations. Prerequisite: two years of botany. 4 s.h.

Professor Blomquist
341. Methods in Plant Physiology.-The theory and use of apparatus and methods in physiological research. 4 s.h.

Professor Kramer
342. Plant Microchemistry.-The identification and estimation of the constituents of plant cells by the use of microchemical tests. Offered in alternate years. 2 s.h.

Associate Professor Addoms
359-360. Research in Botany.-Individual investigations in the various fields of botany. Credits to be arranged.

Professors Blomquist, Harrar, Kramer, Wolf; Associate
Professors Addoms and Oosting; Assistant
Professors Anderson and Perry
397-398. General Botanical Seminar.-One hour per week throughout the year. Required of all graduates majoring in botany. 2 s.h.

Professors Blomquist, Harrar, Kramer, Wolf; Associate
Professors Addoms and Oosting; Assistant Professors Anderson and Perry

## FOREST BOTANY

FOR SENIORS AND GRADUATES
224. Forest Pathology.-Special reference to diseases of forest trees. Prerequisites: Botany 1, 2. 3 or 4 s.h.

Professor Wolf
253. Dendrology.-Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 3 s.h.

Professor Harrar

## RELATED COURSES IN OTHER DEPARTMENTS

These related courses may be counted toward a major in botany.
Forestry 257. Design of Forestry Experiments and Analysis of Data.5 s.h.

Professor Schumacher
Zoology 341. Historical and Philosophical Zoology.-2 s.h.
Professor Hargitt

## CHEMISTRY

PROFESSOR GROSS, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 219 CHEMISTRY building; professors bigelow, London, vosburgh, and wilson; ASSOCIATE PROFESSORS HAUSER, HILL, HOBBS, AND SAYLOR; ASSISTANT PROFESSORS BRADSHER AND BROWN
The graduate work in the Department is planned so as to provide a broad basic training in the fields of inorganic, organic, analytical, and physical chemistry. The selection of the research problem for the A.M. or Ph.D. degree determines in which field further specialization takes place.

In the requirements for the Ph.D. degree the most emphasis is placed on the successful completion, under the direction of a member of the Staff, of a research program leading to the solution of an original problem.

## FOR SENIORS AND GRADUATES

215-216. Advanced Inorganic Chemistry.-A study of modern theories of valence and molecular structure; also of inorganic compounds, particularly the less common types, the colloidal state of matter, and the phase rule, illustrated by suitable laboratory preparations. Prerequisites: Chemistry 70, 151152, and 261-262. 6 s.h.

Professor Vosburgh and Associate Professor Hill
233. Instrumental Analysis.-Experiments in the use of physical measuring instruments in chemical analysis with special attention to optical instruments. One lecture and three laboratory hours. Prerequisites: Chemistry 70 and one year of physics. 2 s.h. (w)

Associate Professor Hobbs; Professor Vosburgh; and Associate Professor Saylor
234. Physico-Chemical Methods of Analysis.-Discussion of physicochemical principles as applied to methods of instrumental analysis, illustrated by laboratory experiments, with emphasis on methods involving electrical techniques. One lecture and three laboratory hours. Prerequisites: Chemistry 70 and 261-262; the latter may be taken concurrently. 2 s.h. (w)

> Associate Professor Hobbs; Professor Vosburgh; and Associate Professor Saylor
236. Theory of Analytical Chemistry.-A study of such topics as precision and errors, theories of precipitation and titration, oxidation and reduction, and others, illustrated by typical analytical methods, including some physicochemical methods. One lecture. Prerequisites: Chemistry 70 and 261-262. 1 s.h.

Professor Vosburgh
241. General Biochemistry.-A study of the composition of plant and animal tissues and of the reactions and uses of some of the more important compounds. Two recitations and six laboratory hours. Prerequisites: Chemistry 70 and $151-152.4$ s.h. (w) Professor Wilson and Assistant
242. Biochemistry.-A continuation of 241 with special reference to the digestion and metabolism of foods. The laboratory work is chiefly the analysis of blood and urine, and may be taken separately. Two recitations (credit 2 s.h.) and six laboratory hours (credit 2 s.h.) 4 s.h. (w) Prerequisites: 241 or the permission of the Department.

Professor Wilson and Assistant
251. Qualitative Organic Analysis.-Systematic identification of organic compounds, including a study of solubilities and classification reactions. Three or six laboratory hours including an hour conference. Prerequisite: Chemistry 151-152. 1 or 2 s.h. (w) Associate Professor Hauser and Assistant
252. Advanced Organic Preparations.-A laboratory course including experiments of a more difficult type than those required on the elementary level, accompanied by oral discussions of the techniques and theories involved, and designed to round out the student's knowledge of fundamental organic processes. Three or six laboratory hours. Prerequisite: Chemistry 151-152. 1 or 2 s.h. (w)

Professor Bigelow and Assistant
253-254. Advanced Organic Chemistry.-Discussion of the theories of organic chemistry with special reference to the mechanism of reactions and the synthesis of some of the more complex compounds such as vitamins, hormones, and alkaloids. Prerequisite: Chemistry 151-152. 4 s.h.

Professor Bigelow and Associate Professor Hauser

261-262. Physical Chemistry.-Fundamentals of general theoretical chemistry illustrated by selected laboratory experiments. Two recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 1-2 and Mathematics $51-52$ or equivalent. 6 s.h.

Professor Gross; Associate Professors Saylor and Hobbs
265-266. Chemical Physics. Statistical Theory, Principles and Applica-tions.-General introduction to statistical methods and applications to chemical problems; solution theory, reaction velocity, changes of state, quantum statistics and the metallic state. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. Lectures, conferences, and assigned problems. 8 s.h.

Professor London
267-268. Chemical Physics. Theoretical Aspects of Atomic and Molecular Structure.-Theories of the chemical bond; atomic and molecular forces. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. Lectures, conferences, and assigned problems. 8 s.h.

Professor London
271. Introduction to Research.-Lectures on the use of chemical literature, research methods, recording and publication of results, preparation of theses, and other topics. One lecture. 1 s.h.

Professors Bigelow, Gross, and Vosburgh
273-274. Seminar.-Required of all graduate students in chemistry. One hour a week discussion. 2 s.h.

Professors Bigelow, Gross, and Vosburgh ; Associate Professors Hauser, Hill, Hobbs, and Saylor; Asssistant Professors Bradsher and Brown
275-276. Research.-The aim of this course is to give instruction in methods used in the investigation of original problems. Nine hours a week and conferences. 3 or 6 s.h.

Professors Bigelow, Gross, London, and Vosburgh; Associate
Professors Hauser, Hill, Hobbs, and Saylor; Assistant
Professors Bradsher and Brown
FOR GRADUATES
303. Thermodynamics.-Fundamental laws of thermodynamics and their applications to chemistry and physics. 3 s.h. Professors Gross and London
304. Chemical Thermodynamics.-A continuation of course 303 with emphasis on applications to chemical problems. The topics considered include chemical equilibrium, theory of solutions, reaction kinetics and dipole theory. 3 s.h.

Professors Gross and Vosburgh; Assoclate Professors Hill and Saylor
351-352. Advanced Synthetic Organic Chemistry.-Recent advances in certain selected fields, such as medicinals, dyes, perfumes, terpenes, and alkaloids, will be discussed. The emphasis will be placed on structure studies and synthetic methods. Lecture or seminar one hour each week. 2 s.h.

Professor Bigelow and Associate Professor Hauser
363-364. Advanced Physical Chemistry.-A discussion of recent advances in particular fields such as reaction kinetics and catalysis, solutions, molecular forces and molecular structure. Prerequisites: Chemistry 261-262 or its equivalent and calculus. 6 s.h.

Professors Gross and Vosburgh; Associate Professors Hill, Hobbs, and Saylor

## related courses in other departments BIOCHEMISTRY

M241. General Biochemistry.-Prerequisites: general chemistry, organic chemistry, elementary physical and analytical chemistry, and at least one year of college biology. February-June. 6 s.h. Dr. Perlzweig and Staff

M242. Biochemical Preparations.-Prerequisite: Biochemistry M241. Hours by arrangement. 2, 3, 4 s.h. Drs. Perlzweig. Neurath and Handler

M243-244. Physical Chemical and Colloid Chemical Principles of Bio-chemistry.-4 s.h.

Dr. Neurath
M341. Pathological Chemistry.-Two hours per week by arrangement. Prerequisites: Biochemistry M241 and Physiology M261-2.

Drs. Perlziveig, Taylor, and M. L. C. Bernheim
M343. Immunochemistry.-2 s.h.
Drs. Martin and Neurath
M363-364. Advanced Seminar in Nutrition.-Prerequisites: Biochemistry M241 and Physiology M261 or equivalents. Two hours weekly. 4 s.h.

Dr. Dann

## ECONOMICS

PROFESSOR HOOVER, CHAIRMAN-103 ADMINISTRATION BUILDING; PROFESSOR SPENGLER, DIRECTOR OF GRADUATE STUDIES- 305 GRAY; PROFESSORS BLACK, DE VYVER, RATCHFORD, AND VON BECKERATH ; ASSOCIATE PROFESSORS EITEMAN, HUMPHREY, AND SMITH; ASSISTANT PROFESSORS ALLEN, SPRINGER, AND WELFLING
A student who proposes to major in economics in his graduate work should have completed in his undergraduate program twelve semester hours of course credit in economics with a grade of "B" or better. At least five semester hours or the equivalent should represent work in Principles of Economics. In the event of a deficiency in his undergraduate preparation, the student may arrange with the Director of Graduate Studies to remove the deficiency during his first year of residence by taking prescribed courses without graduate credit.

FOR SENIORS AND GRADUATES
215. Economic Systems.-A study of alternative economic systems. In addition to an analysis of communism, anarchism, and the variants of socialism, the course will include a consideration of other proposed modifications of the existing economic order. Credit for this course will be given only if the student takes Economics 216. 3 s.h.

Professor Hoover
216. Economic Functions of the State.-A consideration of the primary and secondary economic functions of government and of the legislation which provides for the performance of these functions, such as social legislation and regulation of commerce and industry. Prerequisite: Economics 215 or its equivalent. 3 s.h.

Professor Hoover
217. Population Problems and Resources.-A critical survey of the economic laws of returns and of pre- and post-Malthusian population theory; consideration of the relation between natural increase and the laws of economic distribution and of the effects of changes in the rate of natural increase upon various classes of industry and upon employment; examination of the factors which govern population growth and of current population trends; analysis of international economic and political problems which are founded upon population pressure; consideration of the economic and the biological aspects of differential birth rates. 3 s.h.

Professor Spenglek
218. Business Cycles.-Description and analysis of the causes and consequences of economic rhythms and movements of various lengths (e.g., seasonal, cyclical, long-period, etc.). Analysis of methods proposed as means of curtailing such movements, or of mitigating their effects. 3 s.h.
230. Public Debts in the United States.-A study of the characteristics of public credit as shown by the experience of national, state, and local governments in the United States. Topics considered include: forms, methods, and purposes of borrowing; effects of the contraction and repayment of debts on
governmental fiscal policies, the banking and credit system, and business activity ; methods of controlling or limiting debts; refunding and adjustment procedures; defaults and repudiations. 3 s.h.

Professor Ratchford
231. The Economic History of Modern Europe.-A study of the economic development of Europe, since the sixteenth century to the present, treating such topics as the guilds, mercantilism, money, banking, crises, the Industrial Revolution, the interrelationships of government and business, and the economic consequences of war. The historical backgrounds of present economic problems will be emphasized. 3 s.h.

Associate Professor Smith
233. State and Local Finance.-A study of expenditures, taxation, and financial administration in state and local governments with emphasis on current problems. Special attention will be given to research methods and materials and to the financial relations between state and local governments. 3 s.h.

Professor Ratchford
234. Federal Finance.-A study of the expenditures, revenues, and financial administration of the government of the United States, with emphasis on current problems. Special attention given to budgetary procedure, corporate and individual income taxes, and the financial relations between federal and state governments. 3 s.h.

Professor Ratchford
237-238. Statistical Methods.-A study of statistical methods appropriate for dealing with problems in business and the social sciences. In addition to developing more thoroughly the subjects considered in Business Statistics, the following methods will be considered: simple, multiple, partial, and curvilinear correlation; curve fitting; probability; frequency distributions; and reliability cf estimates. Prerequisite: Economics 138 or consent of the instructor. 6 s.h.

Assistant Professor Springer
241-242. Value and Distribution.-This course is a critical survey of the leading contemporary explanations of price formation and of the determination of interest, rent, wages, and profits. 6 s.h.

Professor Spengler
245. Problems of Modern Industrialism.-This course first surveys technological efficiency and market organization as limiting factors in the determination by industrial management of the rational requirements of plant organization. External political and social forces are then introduced into the complex to show modern industrialism as a phase of mature capitalism. Against the background of modern capitalism, the issue and trends of public policy with respect to economic organization in America and Europe are compared and appraised, with special emphasis on the problems of industrial demobilization and on industrial reconstruction after the war. 3 s.h.

Professor yon Beckerath
256. Labor Legislation.-A study of the relations of the state to labor problems with special reference to remedial legislation, to interference in labor disputes, and to social insurance. 3 s.h.

Professor de Vyver
260. Social Insurance.-A consideration of the economic and social problems involved in workmen's compensation laws, unemployment insurance, oldage pension, and health insurance for workers. Particular attention will be given to the present federal and state social security legislation. 3 s.h.

Professor de Vyver
265. International Trade and Finance.-A study of the fundamental principles of international trade and foreign exchange. Subjects covered will include international specialization, balance of payments, foreign investments, tariffs and commercial policies, exchange control, exchange rates, and international monetary problems. 3 s.h.

Assistant Professor Allen
268. Competitive versus Monopolistic Enterprise.-(1) Competition as an economic order; (2) competition as a political order; (3) monopoly as a disturbance of (1) and of (2). (4) What can government do for the main-
tenance of the competitive order? (5) What can the judiciary do for the maintenance of the competitive order? (6) What can business do for the maintenance of the competitive order? (7) Limits and difficulties of a liberal solution. (8) The effects of war on competition and private enterprise. (9) The role of large-scale industry and small-scale industry in the social economy after the war. Comparison of American, English, and Continental European viewpoints. 3 s.h.

Professor von Beckerath
275-276. Advanced Industrial Accounting and Management.-This course traces the ways and means of executive control through statistics and industrial accountancy. Emphasis is put upon the economics of overhead costs. A complete practice set of cost accounting is worked by each student during the course. Courses $57-58$ and 105 are ordinarily prerequisites for this course. 5 s.h.

Professor Black
FOR GRADUATES
311-312. History of Political Economy.-This course traces the development of economic theory, giving special attention to the various schools of economic thought in England, France, Germany, Italy, and the United States. A large amount of collateral reading in the works of typical authors is required. Lectures and class discussions. 6 s.h.

Professor Spengler
313-314. Seminar in Economic Theory.-The course consists of directed research in economic theory. The primary purpose is the correction of authoritative eclecticism and its replacement by individually integrated theory. Prerequisite: Economics 241-242 or its equivalent. 6 s.h. Professor Hoover
318. General Seminar in Economics.-All graduate students with economics as a major subject are members of this seminar. Reports of progress in research will be made, and there will be lectures and critical discussion by members of the Department. Year course. No credit.

Staff

## RELATED COURSES IN OTHER DEPARTMENTS

Attention is called to the following courses in related departments:
Forestry 279. Economics of Forestry.-3 s.h.
Associate Professor Thomson
History 219-220. The History of the European Proletariat.-6 s.h.
Professor Carrolil
Political Science 207. American Constitutional Law and Theory.- ${ }^{3}$ s.h.
Professor Wilson

## EDUCATION

professor holton, chairman-2A west duke building; professor brownell, director of graduate studies-lc west duke building; rrofessors CARR, CHILDS, AND PROCTOR; ASSOCIATE PROFESSOR SCATES; ASSISTANT PROFESSOR EASLEY; VISITING ASSISTANT PROFESSOR VAN ALSTYNE
The Department offers a full major of work in educational psychology toward the degree of Doctor of Philosophy, with approved minors in as many as two of the divisions listed for the Master's degree, and an approved minor in psychology or in some other department offering work closely related to the thesis problem of the candidate. It is planned to offer complete majors in other divisions as rapidly as the growth of the Department justifies.

The Department offers work toward the Master of Arts and Master of Education degrees, and minor work toward the Doctor of Philosophy degree, in the divisions of elementary education, experimental education and educational psychology, history and philosophy of education, public school administration, and secondary education and educational sociology. It is important for
students who are degree candidates to choose their course according to some unified plan; they are reminded that mere accumulation of more or less unrelated courses in various divisions with minor work in some departments only remotely related to the student's major work does not lead to a graduate degree. Every candidate for a Master's degree should elect at least six, and preferably twelve, semester hours of course work in the special division in which he intends to write his thesis. Students who expect to write theses in the history of education are required to take their minor work in American history. Students writing in school administration are advised to elect minor work in economics and political science. Students in educational psychology should elect their minor work in psychology. No student, except by special approval of the Department and of the Graduate School, is permitted to take minor work in more than one department or to the amount of more than six semester hours.

Candidates for the M.Ed. degree are required to take the four basic courses Education 300, 304, 305, and 317. Besides earning credit in these courses in the usual way, they must also, toward the end of their residence and with the approval of the Director of Graduate Studies, take a comprehensive examination on the content and interrelationships among these courses. Exceptions are allowed (1) in the case of students who can by examination demonstrate satisfactory knowledge of not more than two of these courses and (2) in the case of students who write M.Ed. theses. (See page 30 of this Bulletin.)

For admission to candidacy for the Master of Arts (A.M.) degree with major in Education, or for the Master of Education (M.Ed.) degree, students must, in addition to meeting the general requirements for admission to the Graduate School, meet the following specific requirements (1) eighteen semester hours of acceptable prior work in Education; (2) twelve semester hours of acceptable prior work in a minor field (exception: if psychology or sociology is offered for the minor, six semester hours of work completed after entering the junior year in college will be accepted). In addition, to be accepted as candidates for the degree of M.Ed., whether with thesis or without, students must (3) make an acceptable score on a test of general ability and (4) show by examination that they are able to write good English.

## ELEMENTARY EDUCATION

## FOR SENIORS AND GRADUATES

207. Technique of Teaching.-An advanced course in the teaching process, dealing with the theory underlying sound technique and applied specifically to the work of the elementary school. 3 s.h. (E)

Professor Carr
212. Psychology of the Elementary School Subjects.-A study of the psychology of learning as applied to teaching the common school subjects. First semester. 3 s.h. (E)

Professor Carr
[Not offered in 1946-47]
222. The Curriculum and Materials of the Elementary Grades.-A study of curriculum problems in the elementary schools. 3 s.h. (e) Professor Carr
[Not offered in 1946-47]
232. Elementary School Supervision.-A survey of supervision as a means of improving instruction and adapting the curriculum to child and community needs. 3 s.h. (E)

Professor Carr

## FOR GRADUATES

305. The Nature, Function, and Reorganization of the Curriculum.-One of the required courses for the Master of Education degree. Selected problems guiding the reading of students. Second semester, 3 s.h.

Professor Carr

## EXPERIMENTAL EDUCATION AND EDUCATIONAL PSYCHOLOGY

FOR SENIORS AND GRADUATES
208A. Mental Tests and Applications.-A study of the development of intelligence testing, the concept of general intelligence, various recent applications of mental tests, and training in the giving of individual tests. Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. First semester. 3 s.h. (e) Assistant Professor Van Alstyne

208B. Practicum.-Open only to students approved by the instructor. Second semester. 2 s.h. (E)

Assistant Professor Van Alstyne
209. Statistical Methods Applied to Education.-A study of statistical methods of treating educational and social data designed to enable teachers or administrators to interpret and use the results of scientific investigations in education. 3 s.h. (E)

Associate Professor Scates
216. Psychological Principles of Secondary Education.-A study of adolescence and the psychology of learning as applied to teaching the principal high-school subjects. 3 s.h. (E)

Professor Childs
[Not offered in 1946-47]
218. Educational Implications of Genetic Psychology.-A study of the development of the individual through the stages of growth and learning, with emphasis upon early and later childhood; the development of such behavior patterns as play, language, etc.; the process of socialization, etc. Prerequisite: six semester hours of psychology or educational psychology. 3 s.h. (E)

Professor Brownell
219. Experimental Education.-This course is designed to provide training (1) in planning, (2) in prosecuting, and (3) in reporting quantitative investigations in the field of education, more especially in the field of learning and teaching the various school subjects. Second semester. 3 s.h. (E)

Professor Brownell
227. The Psychology of Learning: Problems.-The major problems related to the learning process will be examined, with the experimental literature bearing on them. The curves of learning and forgetting, the distribution of practice, economical methods of learning, and the transfer of training will be the major topics considered. 3 s.h. (e) Assistant Professor Easley
228. The Psychology of Learning: Theoretical and Experimental.-In this semester the laws of learning, the most important explanatory principles, and the major systems of psychology of learning will be considered. Class experiments will run throughout the semester. Prerequisite: course 227 or its cquivalent. 3 s.h. (E)

Assistant Professor Easley
237. Investigations in Reading.-A summary of the results of the more important scientific studies in reading; interpretation of the results in terms of aims, methods, materials of instruction, testing, diagnosis, and supervision; emphasis on problems requiring further investigation. 3 s.h. (E)

Professor Carr
247. Investigations in Arithmetic.-An analytical survey of investigations in arithmetic, with three purposes in view: (1) to examine the techniques employed with respect to their adequacy as means of solving the problems attacked; (2) to test the validity of the results announced and the values of these results for the teaching of arithmetic; (3) to locate further problems in arithmetic in need of scientific research. 3 s.h. (E)

Professor Brownell
258. Educational Measurements.-A critical study of the principles and techniques involved in measurement in education, with opportunity for individual research. Prerequisite: twelve semester hours in the Department, including a course in educational psychology. 3 s.h. (E)

Associate Professor Scates

FOR GRADUATES
307-308. Seminar in Educational Psychology.-Required of graduate students in educational psychology. 4 s.h. (E)

Professor Brownell
[Not offered in 1946-47]
309-310. Research in Educational Psychology.-This course provides opportunity for more advanced graduate students to engage in individual research projects under close supervision. Credit allowed proportionate to achievement and time devoted to the course. Enrollment by permission of instructor only. 3 to 6 s.h. (E)

Professor Brownell
317. The Psychological Principles of Education.-An advanced study of teaching, learning, and the learner. This is one of the courses required for the Master of Education degree. Selected problems ${ }^{\circ}$ guiding the reading of students will be discussed in class. 3 s.h.

Professor Brownell
320. Advanced Educational Statistics.-This course continues the work begun in Education 209, dealing particularly with further methods of correlation and with various applications to the theory of measurement. The course does not require a background of mathematics beyond high-school algebra. 3 s.h.

Associate Professor Scates
338. Research in Reading.-A course designed for students who have original problems in reading which they desire to investigate. Such studies may be either individual or co-operative. Education 237 is advised as a preliminary course, but is not required. 3 s.h.

Professor Carr
[Not offered in 1946-47]
339. Research Course in Educational Tests.-A study of problems in the construction and interpretation of tests. Prerequisite: the equivalent of course 258. 3 s.h.

Associate Professor Scates
[Not offered in 1946-47]
348. Research in Arithmetic.-A course designed for students who have original problems in arithmetic which they desire to investigate. Such studies may be either individual or co-operative. Education 247 is advised as a preliminary course, but is not required. 3 s.h. Professor Brownell
[Not offered in 1946-47]

## HISTORY AND PHILOSOPHY OF EDUCATION

## FOR SENIORS AND GRADUATES

200. Introduction to the Philosophy of Education.-A consideration of fundamental concepts underlying educational theory, 3 s.h. Professor Holton [Not offered in 1946-47]
201. History of Education in the United States.-A study of the development of the American public school and the interaction of higher education and the public school. 3 s.h.

Professor Holton
[Not offered in 1946-47]
244. Studies in the Historical Development of Public School Administra-tion.-An advanced course devoted to the development of public school administration in the South, with especial reference to North Carolina as a type. 3 s.h.

Professor Holton
[Not offered in 1946-47]
254. History of Secondary Education in the United States.-A study of historical and comparative conceptions of the secondary school, changes in American life affecting the secondary school, present status of the secondary school, current tendencies toward expansion, and the problem of state and federal aid. 3 s.h.

Professor Proctor
[Not offered in 1946-47]
264. Recent Movements in American Education.-An intensive study of educational thought and practice since 1900. 3 s.h.

Professor Holton

## FOR GRADUATES

304. The School as an Institution.-The place of the school in society, its history and philosophy. This is one of the courses required for the Master of Education degree. Selected problems guiding the reading of students will be discussed in class. 3 s.h.

Professor Holton

## PUBLIC SCHOOL ADMINISTRATION

FOR SENIORS AND GRADUATES
203. Principles of School Administration.-The fundamental facts and procedures of school administration, an analysis of the problems and policies of the organization and direction of a local school system, and the functions of the various school officials. Prerequisite: Education 103 and 58, or six semester hours of equivalent work in education. 3 s.h.

Professor Proctor
213. Problems in the Organization and Administration of the Elementary School.-A study of the work of the elementary school principal. 3 s.h.
[Not offered in 1946-47]
Professor Proctor
233. Administrative Pupil-Accounting.-An advanced study of gradation and classification of pupils, with incidental attention to the keeping of records and the making of reports. The study includes a consideration of individual differences, promotions, acceleration, and retardation of pupils; the various plans for classification and gradation; interpreting the results of tests, and some practice in the computation of statistical measures. Second semester. 3 s.h.

Professor Proctor
234. Secondary School Organization and Administration.-A study of the cutstanding problems of secondary school organization and administration other than the problem of gradation and classification of pupils. First semester. 3 s.h.

Professor Proctor
253. Legal Phases of School Administration.-A study of judicial decisions and the development of outstanding features of statute law controlling school administration, with special emphasis upon North Carolina materials. 3 s.h.
[Not offered in 1946-47]
Professor Holton

## FOR GRADUATES

323. Public School Finance.-A study of educational costs, sources of revenue for the support of public education, collection of revenue, basis of distribution, and accounting for funds spent. 3 s.h. Professor Proctor
324. State and County School Administration.-A study of state and county organization of public schools, emphasizing underlying principles. Second semester. 3 s.h.

Professor Proctor
363. City School Administration.-A study of the organization and administration of city school systems, including administrative phases of supervision. Second semester. 3 s.h.

Professor Proctor

## SECONDARY EDUCATION AND EDUCATIONAL SOCIOLOGY

## FOR SENIORS AND GRADUATES

205. Curriculum Problems in Secondary Education.-A consideration of the aims and objectives of secondary school subjects, emphasizing practical problems of curriculum-making in the high school. 3 s.h. Professor Childs
[Not offered in 1946-47]
206. Sociological Foundations of the Secondary School Subjects.-A consideration of the aims and objectives of the secondary school. Prerequisites: six semester hours in education, including course 105. First semester. 3 s.h. (E)
207. Educational and Vocational Guidance.-A survey of the literature on guidance with special reference to secondary education; a critical study of the principles and techniques used in guidance; an attempt to locate the problems most urgently in need of solution. Prerequisite: twelve semester hours in the Department, including course 105 or course 206. Second semester. 3 s.h. (E) Professor Childs
208. The Teaching of History and the Social Studies.-Identical with History 211. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h.
[Not offered in 1946-47]
Associate Professor Manchester
209. The Teaching of Mathematics.-Identical with Mathematics 204. The course counts as an elective in the Department of Education only when approved by the Department and the instructor. 3 s.h. (e) Professor Rankin
[Not offered unless justified by enrollment]
210. The Teaching of High-School French.-Identical with French 218. First semester. 3 s.h.

Professor Webb

## METHODOLOGY OF RESEARCH

FOR GRADUATES
300. Introduction to Educational Research.-The general purpose of this course is to give the student an overview of research, acquaint him with the nature of research processes, and develop within him an appreciation of the essential characteristics of good research work. The course is one of the four basic courses required for the Master of Education degee and is designed to be liberalizing as well as technical. 3 s.h. Associate Professor Scates
301. Methods of Educational Research: Seminar.-Graduate students are instructed in methods of research as applied to selected educational problems. Each student must select for intensive study and practice a subject in which he is interested. Either semester. 3 s.h.

Professors Holton, Carr, Childs, and Proctor
RELATED COURSES IN OTHER DEPARTMENTS
FOR MAJORS IN EDUCATIONAL PSYCHOLOGY, ELEMENTARY EDUCATION,
AND SECONDARY EDUCATION
Psychology 206. Social Psychology.-3 s.h.
Associate Professor Adams and Dr. Koch
Psychology 207. Psychology of Memory, Thinking, Perceiving.-Second semester. 3 s.h.

Professor Zener
Psychology 209. Experimental Methods in Human Psychology.-4 s.h.
Professor Zener
Psychology 212. Physiological Psychology.-3 s.h. Professor Zener
Psychology 215. Developmental Psychology.-3 s.h.
Associate Professor Adams
Psychology 226. Contemporary Schools of Psychology.-3 s.h.
Professor Zener
Psychology 306. Seminar in Child Psychology.-2 or 3 s.h.
Associate Professor Adams
Psychology 309. Theory of Learning.-3 s.h. Associate Professor Adams
Psychology 310. Seminar: Selected Problems in the Dynamics of Behavior. - 3 s.h.

Sociology 212. Child Welfare-3 s.h.
Professor Zener

Sociology 213. Constructive Social Policies.-2 s.h.
Professor Jensen
Professor Jensen

Sociology 319. Principles of Sociology.-3 s.h.
Professor Jensen
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen
FOR MAJORS IN PUBLIC SCHOOL ADMINISTRATION
Economics 217. Population Problems and Resources.-3 s.h.
Professor Spengler
Economics 230. Public Debts in the United States.-3 s.h.
Professor Ratchford
Economics 233. State and Local Finance.-3 s.h. Professor Ratchford
Political Science 209. State and Local Government in the United States.3 s.h.

Professor Rankin
Political Science 230. American Political Institutions.-3 s.h.
Professor Rankin
Political Science 291. Municipal Government.-3 s.h. Professor Rankin
Political Science 292. Municipal Administration.-3 s.h.
Professor Rankin
Sociology 213. Constructive Social Policies.-2 s.h. Professor Jensen
Sociology 215. Rural Sociology.-3 s.h. Associate Professor Thompson
Sociology 216. Urban Sociology.-3 s.h. Associate Professor Thompson
Sociology 218. Community and Society.-3 s.h.
Associate Professor Thompson
FOR MAJORS IN HISTORY AND PHILOSOPHY OF EDUCATION
History 209-210. Constitutional History of the United States, 1763-1860.6 s.h.

Assistant Professor Still
Philosophy 205. The Philosophy of History.-3 s.h. Professor Widgery
Philosophy 208. Political Philosophy.-3 s.h. Professor Patterson
Philosophy 223. Contemporary Philosophy.-Second semester. 3 s.h.
Professor Widgery
Religion 393. Religious Thought in Colonial America.-3 s.h.
Professor Smith
Religion 394. American Religious Thought in the Nineteenth Century.3 s.h.

Professor Smith
Sociology 236. Social Ethics.-3 s.h.
Professor Hart
Sociology 319. Principles of Sociology.-3 s.h.
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen

## ENGLISH

IROFESSOR WHITE, CHAIRMAN-2G5 WEST DUKE BUILDING; PROFESSOR HUBBELL, DIRECTOR OF GRADUATE STUDIES- 105 EAST DUKE BUILDING; PROFESSORS BAUM, GILBERT, GOHDES, AND IRVING; ASSOCIATE PROFESSOR WARD; ASSISTANT PROFESSORS LEARY AND TALBERT
All graduate students in English must pass a qualifying examination before they will be admitted to candidacy for a degree. This examination is given at the beginning of the autumn semester and must be taken at that time by all new students. Those who do not pass will not be accepted as candidates for a degree during the year in which they fail, but they may take the examination offered to graduate students entering at the opening of the first term of the following Summer Session.

Candidates for the degree of Master of Arts are required to elect 203-204 (3 or 6 s.h.). They will also elect one of the period courses (209 and 210, 215-216, 219-220, 221-222, 223-224, 229-230, 233-234) and its corresponding seminar (349) ; and 12 (or 9) additional semester hours.

If a number of students desire to take a course marked "Not offered in 1946-47," the Department will arrange, if practicable, to have the course taught during that session.

201-202. Anglo-Saxon.- In the first semester, an introduction to the language, with the reading of selected prose and of some of the shorter poems; in the second semester, the Beozulf. 6 s.h. (w)

Professor Baum
203-204. Chaucer.-Reading and interpretation of the text; in the first semester, the principal Canterbury Tales; in the second, the Troilus and the minor poems. A reading report and a term paper. 6 s.h. (w)

Professor Baum
205-206. Middle English.-Close study of selected texts, with attention to the development of the language and to the history of the literature from 1200 to 1400 . A term paper each semester. 6 s.h. (w)

Professor Baum
[Not offered in 1946-47]
207-208. English Literature, 1400-1550.-A survey of the period, with a study of some of the special problems. 6 s.h. (w)

Professor Baum
[Not offered in 1946-47]
209. English Literature Other than Drama, 1550-1625.-A study of the principal authors (Sidney, Spenser, Donne, Bacon) and the prevailing types (sonnet, pastoral, epigram, etc.). Lectures, written and oral reports, and a term paper. 3 s.h. (w)

Professor Gilbert
210. English Literature Other than Drama, 1625-1700.-The Metaphysical Yoets, Cowley, Dryden, Butler, and the minor poets of the Restoration; and the prose of Browne, Burton, the Character Writers, Cowley, Dryden, Halifax, and Temple. Lectures and short reports. 3 s.h. (w)
[Not offered in 1946-47] Associate Professor Ward
215-216. Elizabethan Drama.-Careful study of one of two major dramatists (Jonson or Beaumont and Fletcher) and extensive reading in the other writers (Heywood, Ford, Massinger, Marlowe, Middleton) with emphasis on the nature and qualities of their work in relation to its historical background. Exposition of plays, reports, and a term paper each semester. 6 s.h. (w) Professor Gilbert and Assistant Professor Talbert

219-220. The Eighteenth Century.-Swift, Pope, Defoe, Addison, Steele, and others are studied in the first semester; in the second, Gray, Johnson, Boswell, Goldsmith, the letter writers, and the early Romantic poets. Lectures, oral reports, and a term paper each semester. 6 s.h. (w)
[Not offered in 1946-47]
Professor Irving
221-222. English Literature of the Early Nineteenth Century.-A survey of the principal writers and literary monuments from 1798 to 1830; in the first semester, principally Wordsworth, Coleridge, and Lamb; in the second, Shelley, Byron, Keats, and Hazlitt. Occasional lectures, frequent classroom discussions of reading assignments, written and oral reports, and a term paper each semester. 6 s.h. (w)

Professor White
223-224. English Literature of the Later Nineteenth Century.-Some of the most important works of the period are discussed in class; the background is filled in by lectures and assigned reading. The first semester is devoted chiefly to Carlyle, Dickens, Thackeray, Tennyson, and Browning; the second semester to Arnold, Ruskin, Pater, George Eliot, Meredith, the Pre-Raphaelites, and Swinburne. A term paper each semester. 6 s.h. (w) Professor Baum
[In 1946-47 only 224 will be offered]
227. Literary Criticism.-A study of the Greek and Roman critics, in chronological order but with emphasis on their permanent value rather than on the mere history; also of the Continental and English critics to about 1700. Lectures, reports, and a term paper. 3 s.h. (w)

Professor Gilbert
[In 1946-47 this course will be offered in the second semester.]
229-230. American Literature, 1800-1870.-The writers emphasized in the first semester are Emerson, Thoreau, and Hawthorne; in the second semester, Poe and Melville. In the first semester some attention is given also to Edwards, Franklin, Bryant, Longfellow, Holmes, Whittier, Lowell, and Parkman; and in the second semester, to Byrd, Jefferson, Paine, Freneau, Brown, Irving, Cooper, Kennedy, Simms, Timrod, and Lincoln. An oral report and a term paper each semester. 6 s.h. (w)

Professor Hubbell
231-232. Special Studies in American Literature.-An intensive study of Emerson's essays and poems in the first semester; and in the second, of Whitman's Leaves of Grass, with some examples of his prose. Lectures and discussions, with one test and one term paper each semester. 6 s.h. (w)
[Not offered in 1946-47]
Professor Gohdes
233-234. American Literature since 1870.-Selected works of the chief writers of the period, including Whitman, Lanier, Mark Twain, James, Howells, Emily Dickinson, Crane, Dreiser, and others. The lectures deal with the social background and with the careers of the leading authors. One test and one t trm paper each semester. 6 s.h. (w)

Professor Gohdes
235-236. History of American Drama.-The development of the theater and of the dramatic literature in America: in the first semester to 1825, in the second to 1870 . Emphasis will be placed on the drama as a reflection of the philosophical and social influences which affected American writing in other fields. 6 s.h. (w)

Assistant Professor Leary
237. English Drama, 1642-1800.-The Heroic Play and the Comedy of Manners of the Restoration period; and the important plays, serious and comic, of the eighteenth century. Lectures, class discussions, and short reports. 3 s.h. (w)

Associate Professor Ward
[Not offered in 1946-47]

## 247-248. American Literature of the Colonial Period.- 6 s.h.

[Not offered in 1946-47] Assistant Professor Leary
269-270. Southern Literature to 1865 . -The principal writers discussed during the first semester are Byrd, Jefferson, Wirt, Kennedy, the Cooke brothers, Legaré, Simms, Timrod, Hayne, Longstreet and other humorists, and the poets of the Civil War. Considerable attention is paid to the historical and cultural background and to Northern and British authors who wrote about the South. An oral report and a term paper. 6 s.h. (w) Professor Hubbelil
[In 1946-47 only 269 will be offered, in the second semester. 3 s.h.]

## FOR GRADUATES

349. Seminar Courses.-Special study of a single author, with an introduction to bibliography and methods of research. The instructor may substitute other important authors of the period for those listed below. One of these courses is required of all candidates for the degree of Master of Arts. 3 s.h. (w)
(a) Shakespeare.
(b) Milton, or Spenser.
(c) Dryden.
(d) Pope, or Johnson.
(e) Shelley, or Wordsworth, or Byron.

Assistant Professor Talbert<br>Professor Gilbert<br>Associate Professor Ward<br>Professor Irving<br>Professor White

(f) Arnold, or Tennyson.
(g) Poe, or Hawthorne.

Professor Baum
(h) Emerson, or Whitman. Professor Hubbell
Professor Gohdes
In 1946-47 four of these courses will be given, two in the autumn semester and two in the spring.

359-360. Research Courses.-Opportunity for advanced study; intended specially for candidates for the Ph.D. degree. 3 or 6 s.h. (w)
(a) The Early Language and Literature.
(b) Elizabethan Literature.
(c) The Seventeenth Century.
(d) The Eighteenth Century.
(e) The Early Nineteenth Century.
(f) The Later Nineteenth Century.
(g) American Literature to 1870.
(h) American Literature since 1870.

Professor Baum
Professor Gilbert
Professor Gilbert and Associate Professor Ward

Professor Irving
Professor White
Professor Baum
Professor Hubbell
Professor Gohdes
400. Special Studies.-Research or special study, under supervision, may be arranged for Ph.D. candidates whose needs are not otherwise met. This course is given in any semester when authorized by the Director of Graduate Studies and the Dean of the Graduate School. A brief report on the type of work done under supervision must be filed by the professor in charge in crder for credit to be given by the Graduate Office. Hours and credits to be arranged.

Members of the Graduate Staff
RELATED COURSES IN OTHER DEPARTMENTS
The attention of students in English is directed to the following courses:
German 301-302. Gothic-Middle High German.-6 s.h. Professor Vollmer Greek 201-202. Greek Tragedy.-6 s.h.

Dr. Rose
History 221-222. The Age of the Renaissance.-6 s.h.
Associate Professor Nelson
History 223-224. Medieval Institutions and Culture.-6 s.h.
Associate Professor Quynn
History 337. Social and Economic Life of the Old South.-4 s.h.
Professor Sydnor
Philosophy 201-202. The Philosophy of Art.-6 s.h. (e) Professor Gilbert
Philosophy 213-214. History of Aesthetics.-6 s.h. (e) Professor Gilbert
Psychology 202. Psychology of Aesthetics.-3 s.h. Professor Lundholm
Romance Languages 219. Old French.-3 s.h. Professor Cowper

## FORESTRY

PROFESSOR KORSTIAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-FEW QUADRANGLE, HOUSE GG-010; PROFESSORS BEAL, HARRAR, KRAMER, MAUGHAN, SCHUMACHER, AND WOLF; ASSOCIATE PROFESSORS COILE AND THOMSON
Major and minor work is offered in the more scientific aspects of forestry leading to the Master of Arts and Doctor of Philosophy degrees to students who have received degrees from professional schools of forestry of recognized standing or from approved colleges or universities. Work for these degrees
may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, silvics, forest soils, forest mensuration, forest management. forest entomology, and forest economics, except that a major cannot be taken in forest management. College graduates who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology, may pursue graduate study and research only in the specialized fields for which their previous work has qualified them. Students who do not have previous training in forestry will be required to complete a minimum of thirty semester hours of approved work in the Division of Forestry as a preliminary requirement for admission to candidacy for the A.M. and Ph.D. degrees. These men will not be regarded as professionally trained foresters. For information on professional training in forestry, see Bulletin of the School of Forestry.

FOR SENIORS AND GRADUATES
224. Forest Pathology.-Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2, and Forestry 253, or equivalents. 4 s.h.

Professor Wolf
231. Forest Entomology.-Morphology, general classification, life histories, and control of insects injurious to forest trees, logs, and lumber. 3 s.h.

Professor Beal.
251. Sampling Methods in Forestry.-Statistical background for solution of sampling problems with special reference to sample inventory of a forest property. Prerequisite: Forestry S151. 2 s.h. Professor Schumacher
252. Forest Mensuration.-Empirical equations and curve fitting appropriate for construction of timber yield tables, tree volume and taper tables; significance tests and graphical solution of equations. Assignments require operation of calculating machines. Prerequisite: Forestry 251. 2 s.h.

Professor Schumacher
253. Dendrology.-Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 3 s.h.

Professor Harrar
257. Design of Forestry Experiments and Analysis of Data.-Role of experimental design in field and laboratory, and statistical analysis of data as aspects of scientific method in forest research. 5 s.h. Professor Schumacher
259. Wood Anatomy and Properties.-Anatomical, chemical, and nonmechanical physical properties of wood; macroscopic and microscopic identification of more important woods of the United States. Prerequisites: one year of botany and Chemistry 1 and 2 , or equivalent. 3 s.h.

Professor Harrar
261. Forest Soils.-Origin, development, and classification of soils with special emphasis on those developed in climate supporting forests; morphological, physical, and chemical properties of soils in relation to growth of trees; field identification, field sampling, laboratory analysis, and interpretation of field and laboratory observations; interrelationships of soil and forest cover. Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents; physical geology and analytical chemistry are also desirable. 3 s.h.

Associate Professor Colle
264. Silvics.-Ecological foundations of silviculture with special reference to forest site factors; influence of forests on their environment; growth and development of trees and stands; origin, development, and classification of forest communities; methods of studying forest environments. Desirable prerequisites: plant physiology, plant ecology, and Forestry 253 and 261, or equivalents. 3 s.h.

Professor Korstian
276. Forest Policy.-Critical study of forestry movement and development of a forest policy, particularly in the United States; brief résume of forestry in important foreign countries; public land laws of the United States; development of federal and state forestry; forestry laws. 2 s.h.

Associate Professor Thomson
279. Economics of Forestry.-Principles of forest economics. Economic and social values of forests; forest resources and wood requirements; economics of wood production and consumption; prices of forest products; forestry and public finance; forestry and land use; forestry credit; forest fire insurance; forestry as a private business enterprise. Prerequisite: at least one course in the principles of economics. 3 s.h. Associate Professor Thomson

## FOR GRADUATES

323-324. Advanced Forest Pathology.-Advanced study and research on life histories and control of diseases of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and forest pathology. Credits to be arranged.

Professor Wolf
351-352. Advanced Physiology of Forest Trees.-Advanced study and research on problems in physiology of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged.

Professor Kramer
354. Forest Soil Fertility.-Experimental approach to the problems of fertility in forest soil. Influence of stand composition on nitrogen transformation. Methods of studying the exchange complex and the significance of base exchange in forest soil fertility. Prerequisites: Forestry 251 and 261, and plant physiology, or equivalents; bacteriology and analytical and organic chemistry are desirable. 3 s.h. Associate Professor Coile
356. Economic Forces in Forestry.-Critical analysis of classical and contemporary doctrines of comparative forest valuation. Principles underlying the measurement of forces affecting values of land for forestry and alternative uses and investments of capital. Solution of problems involving procedures based upon these principles. Prerequisites: Forestry 279 and 282, or equivalents; courses in economic theory are desirable. 2 s.h. (w)

Associate Professor Thomson
357-358. Research in Forestry.-Credits to be arranged. Students who have had adequate training may do research under direction of members of the Faculty in the following branches of forestry:
a. Silvics.-Prerequisites : Forestry 253, 261, and 264, or equivalents.

Professor Korstian
b. Forest Soils.-Prerequisite : Forestry 261 or equivalent.

Associate Professor Colle
d. Forest Management.-Prerequisite : Forestry 281 or equivalent.

Professor Maughan
e. Forest Economics.-Prerequisite : Forestry 279 or equivalent.

Associate Professor Thomson
f. Wood Anatomy and Properties.-Prerequisites: Forestry 259 and 260, or equivalents.

Associate Professor Harrar
g. Forest Mensuration.-Prerequisites: Forestry S151, 251, and 252, or equivalents.

Professor Schumacher
h. Forest Entomology.-Prerequisite: Forestry 231 or equivalent.

Professor Beal

## GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 205 PAGE AUDITORIUM ; PROFESSOR KRUMMEL
At least two of the following courses will be offered in 1946-1947:
201-202. Goethe.-A careful study of Goethe's life and works, with special emphasis upon the broader aspects of his ever-widening interests and literary activities. 6 s.h.

Professor Krummel
203-204. Leibnitz to Romanticism.-Eighteenth-century German literature in its relation to contemporary European philosophy. 6 s.h.

Professor Vollmer
205-206. Middle High German.-The language and literature of Germany's first classical period. 6 s.h. Professor Vollmer

207-208. German Romanticism.-The course covers the entire field of German Romanticism from 1800 to 1850.6 s.h. Professor Vollmer

209-210. Kleist, Grillparzer, and Hebbel.-A study of the leading representatives of German drama in the first half of the nineteenth century. 6 s.h. Professor Krummel

211-212. Heinrich Heine.-A study of the German poet and his immediate successors in the movement known as Jungdeutschland. 6 s.h.

Professor Vollmer
213-214. Literature of the Empire, 1871-1914.-A study of the literature of this period as determined particularly by the philosophical, social, political, and religious factors. 6 s.h.

Professor Vollmer

## FOR GRADUATES ONLY

301-302. Gothic-Middle High German.-In the first term the essentials of Gothic morphology, phonology, and grammar are investigated, and original Gothic literature is read. In the second term the leading medieval German epics are read in the original. 6 s.h.

Professor Vollmer
303-304. German Seminar.-A seminar will be conducted in an eighteenthor nineteenth-century field for properly qualified students. Credit to be arranged.

Professors Vollmer and Krummel

## RELATED COURSES IN OTHER DEPARTMENTS

The following courses in other departments are recommended to students, who are majoring in Germanics, as particularly valuable in building a proper background for Germanic studies:

Graduate courses in literature or philology offered by the ancient and modern language departments, to be selected after consultation with the German Department.

History 217-218. Europe since 1870.-6 s.h. - Professor Carroll
History 221-222. The Age of the Renaissance.-6 s.h.
Associate Professor Nelson
History 223-224. Medieval Institutions and Culture.-6 s.h.
Assistant Professor Quynn
History 225-226. The Age of the Reformation.-6 s.h.
Associate Professor Nelson
Philosophy 201-202. The Philosophy of Art.-6 s.h. (e) Professor Gilbert

Philosophy 213-214. History of Aesthetics.- 6 s.h. (e) Professor Gilbert
Philosophy 223. Contemporary Philosophy.-Second semester. 3 s.h.
Professor Widgery
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen

## HISTORY

PROFESSOR LAPRADE, CHAIRMAN AN゙D DIRECTOR OF GRADUATE STUDIES-2B WEST DUKE BUILDING; PROFESSORS CARROLL, CLYDE, LANNINGG, AND SYDNOR; ASSOCIATE PROFESSORS CURTISS, MANCHESTER, NELSON, ROBERT, AND WOODY; ASSISTANT PROFESSORS QUYNN AND STILL

## AMERICAN HISTORY

## FOR SENIORS AND GRADUATES

203-204. The United States, 1850-1900. -The rise of sectionalism, secession, wartime problems of the Union and Confederacy, political and economic adjustments of Reconstruction, the status of the Negro, the New South, problems of capital and labor, the agrarian revolt, political parties and reform, the Spanish-American War. 6 s.h. (E)

Associate Professor Woody
[Not offered in 1946-47]
207-208. Social and Cultural History of the United States.-A study of American life and manners with emphasis on the social effects of a changing economy, including religious, educational, and reform movements. 6 s.h.

Associate Professor Robert
209-210. Constitutional History of the United States, 1763-1860.-A study of the Colonial foundations of American constitutional attitudes, the constitutional aspects of the American Revolution, the framing and ratification of the Constitution, the statehood process and the extension of democracy, the constitutional implications of sectional conflict, and the Supreme Court in its relation to the problems of an industrial America. 6 s.h.
[Not offered in 1946-47]
Assistant Professor Still
215-216. Foreign Policy and Diplomacy of the United States.-The work in the first semester, covering the period 1775-1877, deals with such topics as the origins and evolution of basic foreign policies; isolation from Europe; paramount interests in Latin America, including the Monroe Doctrine; international co-operation in the Far East. The work in the second semester, covering the period since 1877, deals with such topics as the rise of the new Manifest Destiny; beginnings of American imperialism in Latin America and the Far East; the failure of traditional neutrality in the first World War; postwar conflicts between isolation and collective security; involvement in the second World War. 6 s.h.

Professor Clyde
[Not offered in 1946-47]
230. The Portuguese Empire and the Rise of Brazil.-The course will deal with Portuguese explorations, the establishment of the Portuguese Empire in the East, the transplanting of Portuguese culture overseas, and the rise of a native Brazilian civilization. 3 s.h. Associate Professor Manchester
231. The Hispanic Colonies of the New World.-The development of the Iberian states as colonizing powers, the work of the conquerors, the Spanish colonial policy and system, their influences and results, native races, the international contest for supremacy, and the decay of Spanish power in America and the Philippines. 3 s.h.

Professor Lanning
232. The Hispanic American Republics of the New World.-3 s.h.

Professor Lanning
233. The Cultural and Institutional History of Colonial Hispanic America. -3 s.h.

Professor Lanning
[Not offered in 1946-47]
234. Political and Social Problems in the Hispanic American Republics.3 s.h.

Professor Lanning
[Not offered in 1946-47]
263-264. American Colonial History and the Revolution, 1606-1783.-The growth of institutions and economic life in the English colonies; the American Revolution. 6 s.h.

Associate Professor Woody
[Not offered in 1946-47]
265-266. The Westward Movement in the United States. A study of the progress of settlement from the Atlantic to the Pacific Coast with especial attention to the transmission of culture, developments in transportation, the transition from agrarian to urban communities, the process of state making, and the social, economic, and political effects of the westward march upon the United States as a whole. 6 s.h.

Assistant Professor Still

## FOR GRADUATES

315. Seminar in Southern History.-Year course. 2 s.h.

Professor Sydnor
321. Seminar in the History of Spain and the Spanish-American Colonies. - Year course. 2 s.h.

Professor Lanning
336. The South in Federal Politics, 1789-1860.-The interests and political actions of the South on such questions as public lands, internal improvements. foreign policy, the tariff, and slavery; the political techniques and theories of the South. Year course. 4 s.h.

Professor Sydnor
[Not offered in 1946-47]
337. Social and Economic Life of the Old South.-Conditions and trends in the South in respect to population movements, transportation, agriculture, slavery, urban life, comnerce, manufacturing, religion, education, and other intellectual activities. Year course. 4 s.h.

Professor Sydnor

## EUROPE AND THE FAR EAST

FOR SENIORS AND GRADUATES
217-218. Europe since 1870.-International relations since the FrancoGerman War is the chief subject of study in this course; special emphasis is placed upon the underlying economic and political influences. 6 s.h.

Professor Carroll
219-220. The History of the European Proletariat.-This course is concerned chiefly with the origins, expansion, and organization of the industrial working classes of Europe. The following problems are emphasized: the decline of serfdom, the growth of an urban working class and social revolutions in England, France, and Germany prior to the eighteenth century, the results of the Industrial Revolution, and labor movements and theories during the nineteenth and twentieth centuries. 6 s.h.

Professor Carroll
[Not offered in 1946-47]
221-222. The Age of the Renaissance.-The decline of characteristic features of medieval civilization and the rise of modern European institutions with particular attention to intellectual movements from Dante to Erasmus. 6 s.h.

Associate Professor Nelson
223-224. Medieval Institutions and Culture.-A consideration of the classical heritage, the Germanic infusion, development of ecclesiastical, feudal, monarchical, and communal institutions, relations of Church and State, the rise of universities, vernacular literature, philosophy, and art, in the period 300-1300 A.D. 6 s.h.

Assistant Professor Quynn

225-226. The Age of the Reformation.-A survey of European civilization irom 1500 through the Peace of Westphalia. 6 s.h.
[Not offered in 1946-47]
Associate Professor Nelson
241-242. The Foreign Relations and Diplomacy of the United States in the Pacific and the Far East.-A study of the origins and growth of American relations with China, Japan, the Philippines, and other Pacific areas in their commercial, political, and cultural aspects. 6 s.h. Professor Clyde

261-262. Russia in the Twentieth Century.-A study of the background of the Revolution of 1917 followed by an analysis of the history and policies of the Soviet state. 6 s.h.

Associate Professor Curtiss

## FOR GRADUATES

305. Seminar in the History of England and the British Empire.-The work consists of practical training in the methods of historical research based on sources for modern British history. Year course. 2 s.h.

Professor Laprade
317. Seminar in Recent European History.-Year course. 2 s.h.

Professor Carroll
325. British Nationality and Public Opinion.-A study of the various political and social groups that have contended for power in England since the sixteenth century and the methods they used. Year course. 4 s.h.

Professor Laprade
327. Modern Phases of the English Constitution.-A brief review of the medieval constitution followed by a more intensive study of certain aspects of its development in the sixteenth, seventeenth, and eighteenth centuries. Year course. 4 s.h.

Professor Laprade
[Not offered in 1946-47]
343. Seminar in the History of American Foreign Relations and the Far East.-Year course. 2 s.h.

Professor Clyde

## historiography and the teaching of history

## FOR SENIORS AND GRADUATES

211. The Teaching of History and the Social Studies.-The work consists of a discussion of the question of aims and values in teaching history and civics, textbooks, programs of study, methods of instruction, the use of maps and pictures, the making of lesson plans for use in the high school, and other problems of high-school teaching. 3 s.h. Associate Professor Manchester

## FOR GRADUATES

320. Historiography.-A critical study of the process of finding, appraising, and interpreting the sources of history and of the presentation of the results in narrative. Works of important historians from Herodotus to the present are analyzed. The student undertakes specific exercises in research, criticism, and narration. There is consideration of such general topics as schools, theories, philosophies, and the function of history. Year course. 4 s.h.
[Not offered in 1946-47]
Associate Professor Nelson
This course is required of all candidates for the degree of Doctor of Philosophy who are in residence as many as two years at Duke University unless excused therefrom by the Department.
321. Historiography of the South.-Attention is given to the more imprortant printed and manuscript sources and to the writings of the older historians. Bibliographical and research problems are introduced. Year course. 4 s.h.

Associate Professor Woody
[Not offered in 1946-47]

## RELATED COURSES IN OTHER DEPARTMENTS

Economics 215. Economic Systems.-3 s.h.
Professor Hoover
Economics 216. Economic Functions of the State.-3 s.h.
Professor Hoover
Economics 231. Economic History of Modern Europe.-3 s.h.
Assistant Professor Smith
Economics 311-312. History of Political Economy.-6 s.h.
Professor Spengler
Political Science 223. Political Thought to the Seventeenth Century.3 s.h. Professor Wilson and Assistant Professor Hallowell

Political Science 224. Modern Political Theory.-3 s.h.
Professor Wilson and Assistant Professor Hallowell
Religion 309. History of the Ancient Near East.-3 s.h.
Professor Stinespring
Religion 393. Religious Thought in Colonial America.-3 s.h.
Professor Smith
Religion 394. American Religious Thought in the Nineteenth Century.3 s.h.

Professor Smith
Sociology 237. Indians of North America.-3 s.h.
Sociology 238. Anthropological Backgrounds of Latin America.-3 s.h.
Sociology 239. Acculturation and Cultural Synthesis.-3 s.h.
Associate Professor Gillin
Sociology 240. The Peoples of Africa.-3 s.h.
Associate Professor Gillin
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen

## MATHEMATICS

professor gergen, chairman and director of graduate studies-03 gray BUILDING; PROFESSORS CARLITZ, ELLIOTT, RANKIN, AND THOMAS; ASSOCIATE PROFESSORS DRESSEL AND ROBERTS
The Department normally offers basic courses in each of the main divisions of mathematics: algebra, analysis, geometry, and applied mathematics. The program planned for 1946-47 is as follows:

Fall semester: Mathematics 227, 235, 255, 285, 291, 343, 371 ; Spring semester : Mathematics 228, 236, 256, 286, 292, 344, 372.

The Master's degree with major in mathematics is awarded primarily on the basis of scholarship. The candidate's preliminary mathematical work for the degree must be approved by the Department through the Director of Gradtiate Studies. It must include differential and integral calculus and an additional six semester hours of work in mathematical courses of at least Junior level. Eighteen of the twenty-four semester hours of course work required by the general regulations for the degree must be taken in the Department.

The Doctor's degree with major in mathematics is awarded as a recognition of potential ability and training in research. The original dissertation is the most important of the formal requirements for it. A candidate should have this requirement in mind from the outset and plan his courses accordingly.

Because of the important mathematical literature in French and German, a student taking graduate work in mathematics should have a practical reading knowledge of these languages near the beginning of his graduate study.

FOR SENIORS AND GRADUATES
201. History of Mathematics.-Evolution of the number system, arithmetic, geometry, algebra, trigonometry, analytic geometry, calculus, and modern geometry. Brief sketches of mathematicians. Prerequisite: differential calculus. 3 s.h.

Professor Rankin
204. Teaching of Mathematics.-Fundamental processes, methods of study, mathematical literature, content of courses, applications, use of instruments, correlation of different branches, historical development of secondary school mathematics. Must be preceded or accompanied by integral calculus. 3 s.h.

Professor Rankin
226. Galois Theory of Equations.-Permutation group, groups of an equation, solvability by radicals. Prerequisite: calculus. 3 s.h.

Professor Thomas
227-228. Theory of Numbers.-Congruences, arithmetic functions, compound moduli, quadratic reciprocity, Gauss sums, quadratic forms, sums of squares. Prerequisite: calculus. 6 s.h.

Professor Carlitz
229-230. Algebraic Numbers.-Ideals, unique factorization, divisors of the discriminant, determination of the class number. Prerequisite: theory of equations. 6 s.h.

Professor Carlitz
235-236. Modern Algebra.-Groups, fields, rings, matrices, quadratic and bilinear forms, general Galois theory, hypercomplex systems. Prerequisite: calculus. 6 s.h.

Professor Carlitz
250. Modern Geometry.-Properties of the triangle, transversals, harmonic properties of figures, poles, polars, inversion. 3 s.h. Professor Thomas
252. Non-Euclidean Geometry.-Geometry of Bolyai and Lobachevsky. Prerequisite: calculus. 3 s.h. Associate Professor Roberts

255-256. Projective Geometry.-Postulational, synthetic treatment centering around Desargues' theorem and the principle of projectivity. Conics, coördinates, order, continuity, metric properties. Prerequisite: calculus. 6 s.h.

Professor Thomas
271-272. Introductory Topology.-Topological properties of Euclidean spaces, set-theoretic and combinatorial methods. Prerequisite: calculus. 6 s.h. Associate Professor Roberts
275. Probability.-Combinatory analysis, mean values, Bernoulli's theorem, probability integral, applications to statistics. Prerequisite: calculus. 3 s.h. Associate Professor Dressel
285-286. Mathematical Analysis for Physicists.-Potentials, Fourier series, Legendre polynomials, Bessel functions, heat equation, wave equation, telegraphic equation, Schrödinger's equation. Prerequisite: calculus. 6 s.h.

Associnte Professor Dressel
287. Mathematical Logic.-Boole-Schroeder algebra of logic, system of Principia Mathematica, strict and material implication. 3 s.h.

Professor Carlitz
288. Foundations of Mathematics.-Postulates for groups, fields, rings, Boolean algebras. 3 s.h.

Professor Carlitz
291-292. Theory of Functions.-Limits, implicit functions, power series, double series, Cauchy's theorem and its applications, residues, Riemann surfaces, conformal mapping. Prerequisite: calculus. 6 s.h. Professor Gergen

## FOR GRADUATES

301-302. Algebraic Geometry.-Homogeneous coördinates, singular points and lines, Newton's polygon, Plücker's equations, intersections of curves. Prerequisite: Mathematics 255-256. 6 s.h.

Professor Thomas

325-326. Real Variable.-Number system, theory of sets, transfinite numbers, Blaire classes, Lebesgue, Stieltjes and Denjoy integrals, linear operations. Prerequisite: Mathematics 291-292. 6 s.h.

Professor Gergen
331-332. Complex Variable.-Analytic continuation, univalent functions, meromorphic functions, analytic functions of several complex variables. Prerequisite: Mathematics 291-292. 6 s.h.

333-334. Analytic Theory of Numbers.-Distribution of primes, primes in an arithmetic progression, Waring and Goldbach problems. Prerequisite: Mathematics 291-292. 6 s.h.

Professor Carlitz
337-338. Existence Theorems.-Systems of partial differential equations, Pfaffian systems, theorems of Cauchy, Riquier, and Cartan, singular integral varieties. Prerequisite: Mathematics 291-292. 6 s.h. Professor Thomas

341-342. Integral Equations.-Volterra and Fredholm integral equations, application to boundary problems of differential equations. Prerequisite: differential equations and second course in calculus. 6 s.h. Professor Elliott

343-344. Ordinary Differential Equations.-Solution by separation of variables, exact differentials, integrating factors, solution in series. Cauchy's existence theorem, linear differential systems, singular points, partial differential equations equivalent to ordinary systems. Prerequisite: Mathematics 291-292. 6 s.h.

Professor Thomas
353-354. Trigonometric Series.-Topics in the theory of trigonometric, particularly Fourier, series, related results in Lebesgue integration and complex variable. Prerequisite: Mathematics 325-326. 6 s.h. Professor Gergen

371-372. Dimension Theory.-Abstract spaces, separation theory for Euclidean spaces, dimension theory. Prerequisite: Mathematics 271-272. 6 s.h. Associate Professor Roberts
373-374. Continuous Transformations.-Recent results concerning a number of special types of continuous transformations. Prerequisite: Mathematics 271-272. 6 s.h.

Associate Professor Roberts
382. Potential Theory.-Properties of harmonic functions, boundary value problems, potentials of general mass distributions. Prerequisite: Mathematics 325-326. 3 s.h.

Professor Gergen

## PHILOSOPHY

HROFESSOR WIDGERY, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-303 DIVINITY SCHOOL; PROFESSORS GILBERT, PATTERSON, AND SMITH; ASSOCIATE PROFESSOR LEONARD; ASSISTANT PROFESSOR MCLARTY
Courses normally given in alternate years marked with a dagger are not offered in 1946-47. Those marked with an asterisk are offered in 1946-47.

FOR SENIORS AND GRADUATES
$\dagger 201-202$. The Philosophy of Art.-Study of the various phases of the esthetic experience and forms of beauty with analysis of examples. Particular attention will be given to recent writers on esthetics. 6 s.h. (E)

Professor Gilbert
*203. The Philosophy of Conduct.-A critical study of the fundamental problems of ethics. 3 s.h. Professor Patterson
$\dagger$ 205. The Philosophy of History.-An inquiry into the logic and methodology of the knowledge of history, and into the metaphysical implications of history. 3 s.h.

Professor Widgery
*208. Political Philosophy.-A critical investigation of the bases of political authority and the ideals of political organization, with reference to prevalent political systems. 3 s.h.

Professor Patterson
$\dagger 209-210$. The Philosophy of Religion.-A critical consideration of the data of empirical religion and the constructive development of modern philosophy of religion. 6 s.h.

Professor Widgery
$\dagger$ 211. Philosophy of Civilization.-The meaning and standards of civilization ; its growth, decay, and survival. 3 s.h.
$\dagger 213-214$. History of Aesthetics.-The tracing of the historical solutions of traditional problems such as the nature of imitation, symbolism, the ugly, the sublime, and the comic; the relation of art to nature, to morals, and to conomics; the relation of the particular arts to each other, the standard of tastes. 6 s.h. (E)

Professor Gilbert
215. Christian Ethics I.-A historical and systematic study of Christian conceptions of the moral life. Religion 291. 3 s.h.
216. Christian Ethics II.-A critical consideration of selected modern problems from the viewpoint of the Christian ethic. Religion 292. 3 s.h.
*217. The Philosophy of Aristotle.-Prerequisite: 105. 3 s.h.
Assistant Professor McLarty
$\dagger$ 223. Contemporary Philosophy.-A study of the leading philosophical movements in Europe and America in the last fifty years. Second semester. 3 s.h.

Professor Widgery
*226. The History of Ethics.-Theories of morality from Socrates to the present time. 3 s.h.
${ }^{`}$ Professor Patterson
*231. Philosophy of Science I.-A historical and critical survey of the relations of natural science to general philosophy. 3 s.h.

Associate Professor Leonard
*232. Philosophy of Science II.-Special problems in the logic of the sciences. Prerequisite: 231 or 3 s.h. of logic. 3 s.h.

Associate Professor Leonard
*236. Oriental Philosophy I. Chinese Philosophy.-3 s.h.
$\dagger$ 238. Oriental Philosophy II. Indian Philosophy.-3 s.h.
Professor Widgery
$\dagger$ 241. Logic.-The characteristic structure of a logical system. Forms of propositions and arguments. Logical relations of propositions. Levels of analysis. 3 s.h.

Associate Professor Leonard
$\dagger$ 242. Scientific Methodology.-A survey of the methods used in the different branches of the natural and social sciences in seeking and testing knowledge. 3 s.h.

Associate Professor Leonard
$\dagger$ 248. Philosophy of Values.-2 s.h.
For graduates
301-302. Seminar in Philosophy.-Special problems, chiefly metaphysical. Two hours a week throughout the year. Time to be arranged. 4 s.h.

Professor Widgery
$\dagger$ 305. Seminar: Spinoza.-Detailed study of Spinoza's works showing the development of his own thought and his relation to his contemporaries. 3 s.h.

Professor Gilbert
*307. Seminar: Kant.-Second semester. 3 s.h.
$\dagger$ 308. Seminar: Hegel.-A study of a selection of the text together with recent interpretations. 3 s.h.

Professor Gilbert
$\dagger$ 310. Seminar: Logical Positivism and Its Relation to Contemporary Movements in Philosophy and Science.-2 s.h.

Associate Professor Leonard
$\dagger$ 315. Seminar in Leibnitz. -3 s.h.
319. Religious Thought in Colonial America.-Religion 393. 3 s.h.

Professor Smith
320. American Religious Thought in the Nineteenth Century.-Religion 394. 3 s.h.

Professor Smith
323. Seminar in American Religious Thought.-Religion 397. 2 s.h.

Professor Smith
*325. Seminar: Locke, Berkeley, Hume.-2 s.h.
Associate Professor Leonard
326. Seminar: Christian Ethics.-Selected problems. Religion 398. 2 s.h. Professor Smith

331-332. Seminar in Special Fields of Philosophy.-2 s.h. each semester.
(a) Logic; (aa) Philosophy of Science.

Associate Professor Leonard
(b) Ethics; (bb) Political Philosophy.
(c) Aesthetics.
(d) Philosophy of Religion; (dd) History. Professor Widgery

## RELATED COURSES IN OTHER DEPARTMENTS

Education 200. Introduction to the Philosophy of Education.-3 s.h.
Prafessor Holton
Greek 209-210. Plato.-6 s.h. Assistant Professor Way
History 221-222. The Age of the Renaissance.-6 s.h.
Associate Professor Nelson
Mathematics 287. Mathematical Logic.-3 s.h. Professor Carlitz
Mathematics 288. Foundations of Mathematics.-3 s.h. Professor Carlitz
Physics 213-214. Contemporary Physics.-8 s.h.
Associate Professor Constant and Professor Nielsen
Political Science 223. Political Thought to the Seventeenth Century.3 s.h.

Professor Wilson and Assistant Professor Hallowell
Political Science 224. Modern Political Theory.-3 s.h.
Professor Wilson and Assistant Professor Hallowell
Psychology 228. Psychology of Belief.-3 s.h. Professor Lundholm
Religion 221. Platonism and Christianity.-3 s.h.
Associate Professor Cushman
Religion 222. Theology and Philosophy in the Nineteenth Century.- 3 s.h. Associate Professor Cushman

Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen Zoology 341. Historical and Philosophical Zoology.-2 s.h.

Professor Hargitt

## PHYSICS

professor nielsen, chairman and director of graduate studies- 111 PHYSICS BUILDING; PROFESSORS HATLEY, NORDHEIM, AND SPONER; ASSOCIATE PROFESSORS CONSTANT AND GORDY; ASSISTAN゙T PROFESSOR SMITH
The Department of Physics makes provision for both beginning and advanced graduate students. The courses are designed to give a broad basic foundation in classical and quantum physics.

The preliminary work for the Master's degree must be approved by the Department. It must include at least twelve semester hours of physics of Junior grade or higher, and mathematics through differential and integral calculus.

All graduate students will first be expected to acquire a thorough knowledge of the various branches of classical physics as well as some familiarity with modern physics and sufficient laboratory training. They will be required to take such course work in the 200 group of studies as may be necessary to complete this foundation.

To complete their course requirements in physics, graduate students will take such advanced courses as will best help them and fit them for the type of work in which they plan to specialize and undertake research. The character of the work in other related departments will also depend upon the field of subsequent specialization and research.

Since a reading knowledge of French and German is highly desirable, students are urged to satisfy the language requirements in both as early as possible.
201. Mechanics.-The fundamental principles of statics and the dynamics of particles and rigid bodies. Three recitations each week. 3 s.h.

203-204. Electricity and Magnetism.-Fundamentals of electricity and magnetism. Electrostatics and magnetostatics. Direct current circuits and net-works-bridges, potentiometers, galvanometers, alternating current circuits and networks-generators, motors, transformers. Transient phenomena-ballistic galvanometers and flux meters. Two recitations and one three-hour laboratory each week. 6 s.h.

Associate Professor Constant and
Professor Nielsen
205. Spectroscopy.-The theory of optical instruments and a discussion of spectroscopic laws and information obtained by spectroscopic methods. Three lectures and one three-hour laboratory each week. 4 s.h.

Associate Professor Gordy and Professor Sponer
207. Sound and Acoustics.-Theory of vibrating systems. Mechanicalelectrical acoustical analogies. Emission and reception of sound, speakers and microphones. Transmission, reflection, refraction, diffraction and absorption of sound. Acoustical application. Two lectures and one three-hour laboratory each week. 3 s.h.

Associate Professor Constant and
Professor Nielsen
213-214. Contemporary Physics.-A course which covers the fundamental concepts and the experimental basis of modern physics. Three lectures and one three-hour laboratory each week. 8 s.h.

## Associate Professor Constant and Professor Nielsen

217-218. Advanced Physics Laboratory.-Measurements involving the fields of mechanics, electricity, magnetism, heat, sound, optics and modern physics. 2-6 s.h.

The Staff
219. Electron Tubes and Their Application.-Theory and application of electron tube circuits with special emphasis on their use in scientific research. Three hours of lecture and one three-hour laboratory per week. 4 s.h.

Professor Nielsen

221-222. Introduction to Theoretical Physics.-Lectures and problems on the fundamental principles and mathematical theory of the general field of physics, constituting a thorough foundation for subsequent specialization and more intensive study. 8 s.h. Associate Professor Constant

## FOR GRADUATES

303. Thermodynamics.-Fundamental laws of thermodynamics and their applications to physics and chemistry. Offered jointly by the Departments of I'hysics and Chemistry. 3 s.h. Professors Gross and Sponer
304. Kinetic Theory of Matter.-Gas laws, Maxwell's distribution law; mean free path; vicosity; heat conductivity; diffusion; phenomena in gases at low pressure; specific heat; entropy; probability and reaction kinetics. 3 s.h.

Professor Sponer
307. Advanced Dynamics.-A course dealing with the more advanced phases of dynamics and considering such topics as equations of Lagrange and Hamilton, generalized coördinates, oscillatory and cyclic motion, criteria of equilibrium, and the Newtonian potential theory. 3 s.h. Professor Nordheim
308. Theory of Electricity and Magnetism.-Electrostatics and potential theory. Dielectric and magnetic media. The magnetic field of currents and the law of induction. AC currents and networks. 3 s.h. Professor Nordheim

315-316. Principles of Quantum Theory.-Origin and fundamental concepts of quantum theory; wave and matrix mechanics; theory of measurements; exclusion principle and electronic spin. 6 s.h. Professor Nordheim
319. Electrodynamics.-Maxwell's system of electrodynamics. Production and propagation of electromagnetic waves. Wave optics. Theory of interference and diffraction. Crystal optics. 3 s.h. Professor Nordheim
[Not offered in 1946-47]
320. Theory of Electrons.-Lorentz' equations of electrodynamics. Classical theories of dispersion, magnetism, and conductivity. Theory of relativity. 3 s.h.

Professor Nordheim
323. Theory of Atomic Spectra.-Excitation of spectra, computation of wave lengths from photographs of spectra, study of the structure of atomic spectra with applications. 3 s.h.

Professor Sponer
324. Theory of Molecular Spectra.-A study of the structure of molecular spectra with applications. 3 s.h.

Professor Sponer
340. Structure of Matter.-Selected topics dealing with the constitution of matter such as crystal structure and X-rays, the solid state and problems of molecular structure. 3 s.h.

Professor Sponer
341. Advanced Topics in Quantum Theory.-Quantum theory of radiation and collisions with special reference to nuclear physics. Prerequisite: Physics 315-316. 3 s.h.

Professor Nordheim
343-344. Radioactivity and Nuclear Structure.-Discovery of radioactivity, properties of Alpha, Beta, and Gamma rays, successive transformations, artificial transmutations and nuclear structure. 6 s.h.

Professor Nielsen
[Not offered in 1946-47]
351-352. Seminar.-A series of weekly discussions on topics related to the research projects under investigation in the Department. 2 s.h. Staff

353-354. Thesis Seminar.-Students who are properly qualified may carry on research work under the direction of members of the Staff. 6 s.h. Staff

## pOLITICAL SCIENCE

> PROFESSOR WILSON, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 311 LIBRARY; PROFESSORS COLE, RANKIN, AND VON BECKERATH; ASSOCIATE
> PROFESSORS GIBSON, LINEBARGER, AND SHIPMAN; ASSISTANT PROFESSOR HALLOWELL

FOR SENIORS AND GRADUATES
207. American Constitutional Law and Theory.-A study of leading principles of American government, as developed through judicial interpretation of the Constitution. 3 s.h.

Professor Wilson
209. State and Local Government in the United States.-A study of the historical development of state and local governments, their present organization, their relation to each other and to the federal government. 3 s.h.

Professor Rankin
211. Political Institutions of the Far East.-A study of the governmental system of Japan, Korea, and China from the Chou Dynasty to the present. 3 s.h.

Associate Professor Linebarger
[Not offered in 1946-47]
212. International Politics of the Far East.-A study of changing power relationships in the Orient since the arrival of the Europeans. 3 s.h.
[Not offered in 1946-47]
Associate Professor Linebarger
223. Political Thought to the Seventeenth Century.-A survey of political thought from the time of Plato to the close of the sixteenth century. 3 s.h. Professor Wilson and Assistant Professor Hallowell
224. Modern Political Theory.-Political theories of the seventeenth and eighteenth centuries, and of the first half of the nineteenth, with a study of their influence upon modern political institutions. 3 s.h.

Professor Wilson and Assistant Professor Hallowell
225. Comparative Government.-A comparative study of modern political institutions with particular attention to European constitutional government and politics. 3 s.h.

Professor Cole and Assistant Professor Hallowell
226. Comparative Government.-A comparative study of modern political institutions with particular attention to European authoritarian and dictatorial government and politics. 3 s.h.

Professor Cole and Assistant Professor Hallowell
227-228. International Law.-Elements of international law, particularly as interpreted and applied by the United States. 6 s.h. Professor Wilson
229. Recent and Contemporary Political Theory.-A study of the more significant contributions to political theory from 1850 to the present. 3 s.h.

Professor Cole and Assistant Professor Hallowell
230. American Political Institutions.-A study of the formation and development of institutions of the national government in the United States, with historical and analytical treatment. 3 s.h.

Professor Rankin
241-242. The Administrative Process.-The function and theory of organization, delegated legislation, administrative adjudication, the control of administration, and special problems in economic balancing and proprietary activities. 6 s.h.

Associate Professor Shipman
244. Administrative Law.-The law of the administrative process, including the nature of regulatory authority, the status and liability of public officers, administrative tribunals and judicial review of administrative action. 3 s.h.

Associate Professor Shipman
252. Spanish-American Constitutionalism.-A comparative study of the nature, sources, and use of political authority in the constitutional law of Argentina, Chile, Colombia, and Uruguay. 3 s.h. Associate Professor Gibson
271. Sociopolitics and Capitalism.-Labor and labor policies in Western Furope and the United States in the nineteenth and twentieth centuries; "social security" during and after the war. 3 s.h. Professor von Beckerath
291. Municipal Government.-A study of problems relating to the structural system and activities of municipalities in the United States. 3 s.h.

Professor Rankin
292. Municipal Administration.-A study of principles and methods of municipal administration in the United States. 3 s.h. Professor Rankin for graduates
310. Seminar in State Government.-Open to students who have completed course 209 or its equivalent. 3 s.h. Professor Rankin
311. Seminar in Far Eastern Politics.-Open to students who have completed course 211 or its equivalent. 3 s.h. Associate Professor Linebarger
[Not offered in 1946-47]
325. Seminar in Comparative Government.-Open to students who have completed course 225-226 or its equivalent. 3 s.h.

Professor Cole
328. Seminar in International Law.-Open to students who have completed course 227-228 or its equivalent. 3 s.h.

Professor Wilson
[Not offered in 1946-47]
341. Seminar in Public Administration.-Open to students who have completed course 241-242 or its equivalent. 3 s.h.
[Not offered in 1946-47]
RELATED COURSES IN OTHER DEPARTMENTS
Economics 216. Economic Functions of the State.-3 s.h.
Professor Hoover
Economics 233. State and Local Finance.-3 s.h. Professor Ratchford
Economics 234. Federal Finance.-3 s.h.
Professor Ratchford
Economics 237-238. Statistical Methods.-6 s.h.
Assistant Professor Springer
Economics 265. International Trade and Finance.-3 s.h.
Assistant Professor Allen
History 215-216. Foreign Policy and Diplomacy of the United States.6 s.h.

Professor Clyde
History 217-218. Europe since 1870.-6 s.h.
Professor Carroll
History 234. Political and Social Problems in the Hispanic American Republics.-3 s.h.

Philosophy 208. Political Philosophy.-3 s.h.
Professor Lanning
Professor Patterson

## PSYCHOLOGY

PROFESSOR LUNDHOLM, CHAIRMAN-201 SCIENCE BUILDING; PROFESSOR ZENER, DIRECTOR OF GRADUATE STUDIES-217A SCIENCE BUILDING; PROFESSOR RHINE; ASSOCIATE PROFESSOR ADAMS;

DR. KOCH
The aim of the Department is to provide opportunity for advanced study in a variety of fields of theoretical and experimental psychology.

In the direction of research done by graduate students, two general aims
are kept in mind : that of training and that of fruitful achievement. The work for the Master's degree weights the first; that for the Pl.D. the second of these aims. There is wide tolerance of subject matter for research, and encouragement is given to originality and freedom in thinking.

It is expected that the graduate student will have entered with preparation equivalent to the undergraduate courses offered by the Department. A reading knowledge of French and German is desirable from the beginning, and in no case should the acquisition of this be postponed later than the beginning of the second year.

No limitation is laid down as to the departments in which it is possible to minor. The fields most usually relevant to graduate study in psychology, however, are education, sociology and anthropoloy, endocrinology, physiology, and philosophy.

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FOR SENIORS AND GRADUATES
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202. Psychology of Aesthetics.-3 s.h.

Professor Lundholm
[Not offered in 1946-47]
203. Conation and Our Conscious Life.-3 s.h.

Professor Lundholim
204. Motivation and Learning.-Social and biological conditions of the operation, modification, organization of motivational systems. 3 s.h.

Professor Zener
206. Social Psychology.-Kinds of membership character; psychology of social movements; propaganda; revolution; nationalism; war. 3 s.h.
[Fall semester only]
Dr. Kochi
207. Psychology of Memory, Thinking, Perceiving.-A study of thinking, remembering, and perceiving with reference to the basic processes involved and their determining conditions, with emphasis upon organization, meaning, and motivation. 3 s.h.

Professor Zener
[Not offered in 1946-47]
209. Experimental Methods in Human Psychology.--A study of methods for the control and recording of essential variables in human psychological situations, with consideration of the relation of experimental techniques to problem formulation and psychological theory. Laboratory and lectures. 4 s.h.

Professor Zener

## 212 Physiological Psychology.-3 s.h.

Professor Zener
[Offered in fall semester]
215. Developmental Psychology.-The envirommental forces conditioning the development of personality structure and the mechanisms contributing to psychological growth; critical periods in character formation from infancy to senescence. 3 s.h. (E)

Associate Professor Adams
223. Abnormal Psychology.-3 s.h.

Professor Lundholm
226. Psychology: Historical and Theoretical.-3 s.h.

Professor Zener
[Not offered in 1946-47]
228. Psychology of Belief.-3 s.h.

Professor Lundholim
[Not offered in 1946-47]
FOR GRADUATES
302. Seminar.-3 s.h.

Professor Lundholm
[Not offered in 1946-47]
303-304. Research.-2 or 3 s.h. Professors Lundholm, Rhine, And Zener; Assoclate Professor Adams
306. Seminar in Child Psychology (Clinical).-2 or 3 s.h.

Assoclate Professor Adams
307. Seminar in Psychology of Personality.-3 s.h. Professor Rhine [Not offered in 1946-47]
309. Theory of Learning.-3 s.h.

Associate Professor Adams
[Not offered in 1946-47]
310. Seminar: Selected Problems in the Dynamics of Behavior.-3 s.h. Professor Zener
313. Seminar in Parapsychology.-3 s.h. (E)

Professor Rhine

## related courses in other departments

Education 208A. Mental Tests and Applications. -3 s.h.
Assistant Professor Van Alstyne
Education 208B. Practicum.-2 s.h. Assistant Professor Van Alstyne Education 209. Statistical Methods Applied to Education.-3 s.h.

Associate Professor Scates
Education 218. Educational Implications of Genetic Psychology.-3 s.h.
Professor Brownell
Education 227. The Psychology of Learning: Problems.-3 s.h.
Assistant Professor Easley
Education 228. The Psychology of Learning: Theoretical and Experi-mental.-3 s.h. Assistant Professor Easley

Education 258. Educational Measurements.-3 s.h.
Associate Professor Scates
Education 317. The Psychological Principles of Education.-3 s.h.
Professor Brownell
Education 320. Advanced Educational Statistics.-3 s.h.
Associate Professor Scates
Philosophy 223. Contemporary Philosophy.-3 s.h. Professor Widgery Philosophy 231. Philosophy of Science I.-3 s.h.

Associate Professor Leonard
Philosophy 232. Philosophy of Science II.-3 s.h.
Associate Professor Leonard
Philosophy 241. Logic.-3 s.h. Associate Professor Leonard
Philosophy 242. Scientific Methodology.-3 s.h.
Associate Professor Leonard
Sociology 205. Social Pathology.-3 s.h.
Professor Jensen
Sociology 206. Criminology.-3 s.h. Professor Jensen
Sociology 212. Child Welfare.—3 s.h. Professor Jensen
Sociology 217. Race and Culture.-3 s.h. Associate Professor Thompson
Sociology 350. Seminar in Applied Sociology.-1 to 3 s.h.
Professor Jensen
Zoology 229. Endocrinology.-4 s.h. Assistant Professor Jeffers
Zoology 321. General Physiology.-4 s.h.
Zoology 324. Advanced Physiology.-4 s.h.
Zoology 341. Historical and Philosophical Zoology.-2 s.h.
Professor Hargitt
Zoology 351-352. Zoological Journal Club.-2 s.h.

## RELIGION

PROFESSOR SMITH, DIRECTOR OF GRADUATE STUDIES- 302 DIVINITY SCHOOL;
PROFESSORS BRANSCOMB, CLARK, PETRY, SPENCE, AND STINESPRING; ASSOCIATE PROFESSOR CUSHMAN; ASSISTANT PROFESSOR BEACH, AND DR. YOUNG
Graduate study in religion leading to the degrees of Master of Arts and Doctor of Philosophy may be pursued in three fields: (1) Biblical Studies; (2) Studies in Church History; and (3) Studies in Christian Thought. A student majoring in one of these fields will be expected to take such courses in one or both of the other fields as may be necessary to give an adequate understanding of his own field of specialization.

Students pursuing work in the field of religion will be expected to take such other courses in cognate fields as will aid in the understanding of their field of specialization. Special attention is called to the Division of Ancient Languages and Literature for those working in Field I; to the Department of History for those working in Field II; and to the Department of Philosophy and the Department of Sociology for those working in Field III.

## FIELD I. BIBLICAL STUDIES

201-202. First Hebrew.- The principles and structure of the Hebrew language with translation of selected Old Testament narratives. 6 s.h.

Professor Stinespring
205-206. Arabic.-Introduction to the classical language and literature with some attention to the modern idiom. Hours to be arranged. 6 s.h.
[Not offered in 1946-47]
Professor Stinespring
207-208. Second Hebrew.-Samuel or Kings the first semester and Isaiah the second. 6 s.h.

Professor Stinespring
301. The Religious Thought of Post-Exilic Judaism.-A critical study of the religious and ethical ideas of the more important later writings of the Old Testament and the Apocrypha. Prerequisite: Old Testament 203-304. 3 s.h. Dr. Young
304. Aramaic.-A study of the Aramaic portions of the Old Testament, and selected passages from the Targums, Midrashes, and Talmuds. Hours to be arranged. 3 s.h.

Professor Stinespring
305. Third Hebrew.-A study of late Hebrew prose, with readings from Chronicles, Ecclesiastes, and the Mishnah. Hours to be arranged. 3 s.h.

Professor Stinespring
309. History of the Ancient Near East.-A specialized study of the civilizations of Egypt, Palestine, Syria, and Mesopotamia in light of Biblical archaeology. 3 s.h.

Professor Stinespring
[Not offered in 1946-47]
310. Old Testament Prophecy.-The prophetic movement in Israel with special emphasis on the prophets of the eighth century B.C. 3 s.h.

Professor Stinespring
217. The New Testament in Greek.-Extensive reading of the Greek text of the New Testament, with special emphasis upon its interpretation. 3 s.h.

Professor Clark
218. Galatians and I Corinthians.-A detailed study of two of Paul's major epistles, based on the Greek text. $3 \mathrm{~s} . \mathrm{h}$. Professor Clark
[Not offered in 1946-47]
220. I Peter and the Gospel of John.-A detailed study of two of the nonPauline writings of the New Testament, based on the Greek text. 3 s.h.

Professor Clark
311. The Life and Teachings of Jesus.-Prerequisite: New Testament 213-214. 3 s.h. Professor Branscomb
312. New Testament Theology.-The religious teaching of the books of the New Testament. Prerequisite: New Testament 213-214. 3 s.h.

Dr. Young
313. The Apostolic Fathers.-A study of the Christian development from Clement of Rome to Polycarp, with readings of the Greek text. 3 s.h.

Professor Clark
314. Early Christian Apologists.-A study of Christian apologetic in the second century, with readings of the Greek text. 3 s.h.
[Not offered in 1946-47]
Professor Branscomb
315. Judaism at the Beginning of the Christian Era.-A study of Judaism from the time of Ben Sirach to the composition writing of the Mishnah. 3 s.h.
316. Hellenistic Religions at the Beginning of the Christian Era.-3 s.h. [Not offered in 1946-47]

Professor Clark
318. Text of New Testament.-A study of the materials for the reconstruction of the text, the principles of textual criticism, and the history of the text. Practical exercises in the use of manuscripts and facsimiles will be given. 3 s.h.

Professor Clark
320. Rabbinic Literature.-Critical readings in Rabbinic Literature of the early centuries of the Christian Era. 3 s.h.

## related courses in other departments

Greek 257. Social and Cultural History of the Hellenistic World from Alexander to Augustus.-3 s.h.

Professor Rogers
Latin 258. Social and Cultural History of the Graeco-Roman World.3 s.h.

Professor Rogers

## FIELD II. STUDIES IN CHURCH HISTORY

328. The Church in Europe since 1800.-Emphasis is placed on the relation of the Church to the social, economic, and political life of Modern Europe. F'rerequisite: Church History 233-234. 3 s.h.

Professor Petry
[Not offered in 1946-47]
331. The Social Message of the Early and Medieval Church.-A study of the social teachings and contributions of the Christian Church prior to the Protestant Reformation. Prerequisite: Church History 233-234. 3 s.h.

Professor Petry
332. The Medieval Church.-Outstanding characteristics of the Medieval Church, emphasizing theory, polity, institutions, sacraments, and worship. Prerequisite: Church History 233-234. 3 s.h.

Professor Petry
[Not offered in 1946-47]
333. A History of Christian Renunciation in the Middle Ages.-A study of the renunciatory ideal and spiritual practices with special reference to Benedictines, Franciscans, Lowland Mystics, and leading seculars. Prerequisite: Church History 233-234. 3 s.h.

Professor Petry
334. Church Reformers and Christian Unity.-The work of such reformers as Marsilius of Padua, William of Ockham, John Gerson, Pierre d'Ailly, and Nicholas of Cusa in relation to ecclesiastical schism and the search for Christian unity through representative councils. Prerequisite: Church History 233-234. 3 s.h.
[Not offered in 1946-47]
365. History of Religious Education in Modern Times.-A critical study of the historical movements in religious education since the Reformation with special consideration of the American development. 3 s.h. Professor Spence

## RELATED COURSES IN OTHER DEPARTMENTS

History 221-222. The Age of the Renaissance.-6 s.h.<br>Associate Professor Nelson

History 223-224. Medieval Institutions and Culture.-6 s.h.
Assistant Professor Quynn
History 225-226. The Age of the Reformation.-6 s.h.
Associate Professor Nelson

## FIELD III. STUDIES IN CHRISTIAN THOUGHT

321. Platonism and Christianity.-An analysis of Plato's religious philosophy and a survey of its continuing influence in Hellenistic and Christian thought. Prerequisite: six semester hours in philosophy or its equivalent. 3 s.h.

Associate Professor Cushman
322. Theology and Philosophy in the Nineteenth Century.-A study of Protestant thought from Schleiermacher to Troeltsch together with representative theologians of Britain, with special attention to the reciprocal relations between theology and metaphysics. 3 s.h. Associate Professor Cushman
325. Philosophical Theology I.-Analysis and critique of dominant types of contemporary world-views for the formulation of the problem of philosophical theology. Main problems in the history of philosophical theology. 3 s.h. Associate Professor Cushman
326. Philosophical Theology II.-Historical and constructive approach to the problem of faith and reason, God and evil. 3 s.h.

## Associate Professor Cushman

329. Seminar in Historical Theology.-Selected problems in the history of Christian thought, with special reference to the relation between theology and philosophy. 2 s.h.
[Not offered in 1946-47]
330. Theories of Religious Education.-A critical investigation of current theories of Religious Education. 3 s.h. Professor Spence

391-392. Historical Types of Christian Ethics.-A critical study of representative documents of Christian ethical theory. 6 s.h.

## Assistant Professor Beach

394. Christianity and the State.-The relation of the Christian theory of the State to political problems, with special consideration of the religious assumptions underlying democratic theory and practice. 3 s.h.

Assistant Professor Beach
395. Religious Thought in Colonial America.-An exposition and evaluation of colonial movements in religious thought. 3 s.h. Professor Smith
396. American Religious Thought in the Nineteenth Century.-An exposition and evaluation of nineteenth-century developments in American religious thought. 3 s.h.

Professor Smith
397. Religious Thought in America Today.-A critical analysis of the leading tendencies in American religious thought since 1900. 3 s.h.

Professor Smith
398. American Christology.-An analysis of the historical development of modern American conceptions of the person and work of Christ. 3 s.h.
[Not offered in 1946-47]
Professor Smith

495-496. Seminar in American Religious Thought.-Topics for 1946-47, William James, George H. Mead and John Dewey, 4 s.h. Professor Smith other courses
Certain other courses listed in this bulletin and in the Bulletin of the Divinity School may be taken for graduate credit provided that at the time of registration they are approved by the Director of Graduate Studies in Religion and by the Dean of the Graduate School.

## ROMANCE LANGUAGES

PROFESSOR WEBB, CHAIRMAN- 107 GRAY BUILDING; PROFESSOR JORDAN, DIRECTOR OF GRADUATE STUDIES-106 GRAY BUILDING; PROFESSORS COWPER AND LUNDEBERG; ASSOCIATE PROFESSOR WALTON ; ASSISTANT PROFESSOR DAVIS
To be eligible for graduate study in this Department, the student should normally have credit for four years of college work in the chosen language, or eighteen hours beyond the conventional two units offered at entrance to college. In addition to this minimum requirement, one semester of composition and grammar review is highly desirable.

It is recommended that candidates for the Master's degree take a second Romance Language for the minor subject.

A candidate for the Ph.D. degree should be equipped to follow graduate courses in a second Romance Language. Some training in Romance Linguistics will be required for this degree, the amount to be determined by the Department upon consideration of the student's preparation in the field.

Graduate students will be required to maintain oral practice in their major language through non-credit exercises that will be provided.

## FRENCH

## FOR SENIORS AND GRADUATES

213. French Classicism.-From Malherbe to La Bruyère. 3 s.h.

Associate Professor Walton
214. French Classicism.-From La Bruyère to the Encyclopedists and Beaumarchais. 3 s.h.

Associate Professor Walton
215-216. The Modern French Novel.-A survey of the novel form from the seventeenth to the twentieth century, with particular attention to the analysis of fundamental literary tendencies; classicism, rationalism, romanticism, and realism. 6 s.h.

Professor Jordan
217. French Phonetics.-French sounds and French spelling; pronunciation drills; exercises in phonetic transcription and dictation; diction; aural comprehension. 3 s.h.

Professor Webb
218. Materials and Methods.-History of the teaching of French; methods; the course of study; analysis and criticism of representative texts; tests and examinations; objectives in the light of teaching conditions, equipment and future application. 3 s.h.

Professor Webb
219. Old French.-An introduction to the Old French language and literature. The Chanson de Roland-Aucassin et Nicolette. 3 s.h. Professor Cowper
220. Old French.-Types of Old French literature. The romances of chivalry. 3 s.h.

Professor Cowper
227. French Poetry since Théophile Gautier.-Parnassianism and Symbolism. 3 s.h. Associate Professor Walton
232. Rousseau and the Beginnings of Romanticism. -3 s.h.

Professor Cowper
233. Main Currents of Modern French Literature.-A survey of the principal literary tendencies from the serenteenth to the nineteenth century. Selected illustrative readings from leading authors. 3 s.h. Professor Webb

## FOR GRADUATES

317. History of the French Language, Phonology and Morphology.-3 s.h. Professor Cowper
323-324. Realism and Naturalism.-Literary doctrines and practices in the generation of $1850-90$, with particular reference to the background of scientific thinking. 6 s.h.

Professor Jordan
325-326. French Literature in the Sixteenth Century. -6 s.h.
Associate Professor Walton
328. Anatole France.-3 s.h.
331. Diderot and the Encyclopédie.-3 s.h.

Associate Professor Walton
Professor Cowper
333-334. Contemporary French Literature.-A study of the main currents in the twentieth century, with consideration chiefly of authors who have contributed most to contemporary tendencies. 6 s.h.

Professor Jordan
350. Nineteenth-Century French Criticism.-A survey of critical doctrines and practices from Saint-Beuve to the end of the century. 3 s.h.

Professor Jordan
Of the courses listed above, the following will be offered during the first semester of the year 1946-47: 218, and four courses from the group 213, 215, 219, 233, 323, 325, 333. During the second semester, 217, and four courses from the group $214,216,220,227,232,324,326,334,350$.

## SPANISH

## FOR SENIORS AND GRADUATES

253. Spanish Phonetics.-The sounds of the Spanish language; sound changes; exercises in transcription; regional pronunciation; intonation; limited use of electrical recording machines. 3 s.h.

Professor Lundeberg
255-256. Spanish in Spanish-American Literature.-The course will center about the development of national and continental consciousness in SpanishAmerican literary history from colonial times to the present day, although special emphasis will be given to modern literature. Extensive individual investigations and reports with adequate training in bibliography. 6 s.h.
[Not offered in 1946-47]
257-258. Old Spanish Language and Literature.-First semester: the historic development of the language together with illustrative readings. Second semester: the literature of the Middle Ages and early Renaissance. 6 s.h.

Assistant Professor Davis
260. Advanced Syntax and Composition.-A systematic review of Spanish syntax; free oral and written composition; selected translation assignments; epistolary forms, etc. Conducted mainly in Spanish. 3 s.h.

Professor Lundeberg
261-262. The Modern Spanish Novel.-The evolution of the novel from the Costumbrista writers through the generation of 1898.6 s.h.

Professor Lundeberg
265. Golden Age Literature: Cervantes.-The Novelas ejemplares; analytic study of the tales, their style, literary importance and influence. 3 s.h.
[Not offered in 1946-47]
Professor Lundeberg
266. Golden Age Literature.-Golden Age Drama.-Study of representative plays of the period, with emphasis on the theme of honor. 3 s.h.
[Not offered in 1946-47]
Professor Lundeberg

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, DIRECTOR OF GRADUATE STUDIES- 310 LIBRARY BUILDING; PROFESSOR HART; ASSOCIATE PROFESSORS SCHETTLER AN゙D THOMPSON; ASSISTANT PROFESSOR LABARRE
205. Social Pathology.-A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society: poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities, and unstandardized commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Jexsen
206. Criminology.-A study of the original tendencies of man and the problem of socializing these tendencies; the relations of physical and mental defectiveness and untoward influences in the home and neighborhood to crime: the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Jensen
212. Child Welfare.-A study of heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency ; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Jensen
[Offered in Summer Session, 1946]
213. Constructive Social Policies.-An intensive study of the theories and legislation dealing with such problems as compensation, vocational re-education, and other methods of social insurance and social improvement. 2 s.h.
[Not offered in 1946-47]
Professor Jensen
215. Rural Sociology.-A study of the societies developed by people who settle the land and exploit it for a livelihood; patterns of settlement; culture; peasant, farmer, and folk societies; and rural institutions. Special attention is given to the plantation and the rural problems of the South. Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Assoclate Professor Thompson
216. Urban Sociology.-The city and civilization. This course studies the inner life and problems of the city and its function in the larger regional and world community which it nucleates. Prerequisite: course 91-92, 101, or 131132. 3 s.h.

Associate Professor Thompson
217. Race and Culture. - An analytical study of racial and cultural relations and problems of the Indian, the Negro, and other minority groups in historical and contemporary society. Prerequisite: course 91-92, 101, or 131 132. 3 s.h.

Associate Professor Thompson
218. Community and Society.-This course studies the dual aspect in which social life presents itself: (1) as a population group or groups, and (2) as a constellation of institutions. Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Associate Professor Thompson
225. Statistical Methods in Sociology.-Deals with the processes of definition, classification, measurement, tabulation, association, correlation, comparison of averages and of percentages, causation, prediction, preparation and interpretation of charts and graphs as applied to and illustrated by sociological data. Prerequisite: course 91-92, 101, or 131-132. 3 s.h. Professor Hart
227. Emigration and Immigration.-A study of territorial movements of population with special reference to Europe and America. Causes and extent of migration; its effect upon American and European society ; origin and char-
acteristics of immigrant groups and their organization in the New World; problems, agencies, and processes of assimilation. Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Jensen
[Not offered in 1946-47]
231. General Ethnography.-A comparative study of cultures in the world over, including language, religion, marriage and social organization, art, music and material culture, with emphasis upon preliterate peoples. Prerequisite: Suciology 131. 3 s.h. (w)

Assistañt Professor Labarre
236. Social Ethics.-A study of sociological fundamentals underlying cthics, including the controversy between materialistic and idealistic social thinkers, the nature of personalities and of social organization, the nature of social values, types of social interaction and their effects upon general social values, underlying principles and facts of social change, and the bearings of all these upon certain social problems. 3 s.h.

Professor Hart
237. Indians of North America.-Origin and early developments of aboriginal populations; development and distribution of tribes, their customs and languages; Indian influences on Euro-American culture; present status of the Indians; considerations of the culture-environment relationships in the light of comparison between aboriginal and modern American life. Prerequisite: course 131. 3 s.h.

Assistant Professor LaBarre
238. Anthropological Backgrounds of Latin America.-The aboriginal races and cultures of Latin America; origins; development; distribution and variations at the time of the Discovery: lberian and African racial importations of the past four hundred years; the contemporary fusion and mixtures in such areas as Brazil, the Andean highlands, etc., and their relation to certain contemporary problems. Prerequisite: course 131, or equivalent. 3 s.h.

Assistant Professor LaBarre
239. Acculturation and Cultural Synthesis.-A study of the results of contact between preliterate and literate cultures in various parts of the world and the prospects for the future. Prerequisite: course 131, or equivalent. 3 s.h.

Assistant Professor La Barre
240. The Peoples of Africa.-A survey of the aboriginal peoples and cultures of Africa from the earliest times to the present day with special attention to the areas of origin of the American Negro. Prerequisite: course 131. 3 s.h.

Assistant Professor LaBarre
252. Education and Social Control.-A study of education as an agency cf social progress from primitive times to the present. Prerequisite: course 91-92, 101, or 131-132. 2 s.h.
[Not offered in 1946-47]
281. Social Attitudes and Collective Behavior.-Study of attitudes as products of social interaction; organization of attitudes into personal behavior patterns; expression of social attitudes in social, political and industrial groups; social unrest and the behavior of crowds and mobs: analyses of social movements, strikes, revolutions, and other group organization. 3 s.h.

Associate Professor Schettler
282. Public Opinion.-Nature and development of public opinion; relation to attitudes, biases, stereotypes and controversial issues; role of leaders, pressure groups and minority groups; use of radio, press, motion picture and graphic arts; propaganda and censorship; measurements of public opinion. 3 s.h.

Associate Professor Schettler

## FOR GRADUATES

317. Seminar in Anthrop ${ }^{\text {logy.-A seminar for advanced students who }}$ wish to pursue individual studies in racial or cultural anthropology. 1 to 3 s.h. cach scmester.

Assistant Professor Labarre
319. Principles of Sociology.-A critical study of sociological theory. The sociological theories of recent writers will be critically examined with a view to laying the foundation for a constructive theory of the social life in modern biology and psychology. Discussions and papers by the class. 3 s.h.
[Not offered in 1946-47]
Professor Jensen
320. History of Sociological Theory.-Lectures on the development of social thought from Aristotle to the present; the social philosophies of Plato, Aristotle, St. Augustine, Thomas Aquinas, Machiavelli, Bodin, Hobbes, Locke, Vico, Montesquieu, Rousseau, Condorcet, and the sociological systems of Comte, Spencer, Schaeffle, Lilienfeldt, Gumplowicz, Ratzenhofer, and Ward will, among others, be considered. A large amount of assigned reading will be required in this course. The student is advised to correlate this course with related courses in economics, history, political science, and philosophy. 3 s.h.

Professor Jensen
322. Methods of Social Research.-A study of the various methods of research and investigation that can be applied to the study of social phenomena. 3 s.h.

Professor Jensen
326. Operational Sociology.-A seminar for advanced students, presenting an operational philosophy of social science as a basis for research in sociology and religion. Examples of operational procedure in these fields will be analyzed. Assigned projects will embody applications of the operational method. Prerequisite: one of the following: Sociology 225, or Economics 237-238, or Education 209, or Mathematics 74 or 275, or some other acceptable course in statistics. 3 s.h.

Professor Hart
330. Seminar.-Research work upon special problems in sociology and anthropology. 1 s.h. each semester.

Professors Hart and Jensen; Associate Professors Schettler and Thompson
340. Seminar.-Special problems in race relations, urban and rural life, and the sociology of the South generally. $3 \mathrm{~s} . \mathrm{h}$. each semester.

Associate Professor Thompson
350. Seminar in Applied Sociology.-Special research problems in social pathology, child welfare, criminology, and related topics. 1 to 3 s.h. each semester.

Professor Jensen
351. Seminar in Medical Sociology.-The basic principles of the various medical specialties as applied to the problems of marriage and the family. Open only to graduate students in sociology, with the consent of the instructor and of the Director of Graduate Studies. Given by the Staff of the Medical School under the direction of Dr. Bayard Carter, M.D. 2 s.h.
[Not offered in 1946-47]
352. Seminar in Family Law.-A seminar approach to the efforts of the social sciences, including law, to deal with the intricate and perplexing problems of the modern family. Readings are assigned in legal and sociological material. 2 s.h.

Professor Bradway
360. Seminar in Social Statistics.-Special research problems in social statistics, social ethics, the family, or related topics. 1 to 3 s.h. each semester. Professor Hart

## RELATED COURSES IN OTHER DEPARTMENTS

Economics 215. Economic Systems.-3 s.h.
Professor Hoover
Economics 216. Economic Functions of the State.-3 s.h.
Professor Hoover
Economics 217. Population Problems and Resources.-3 s.h.
Professor Spengler

# Political Science 223. Political Thought to the Seventeenth Century.3 s.h. Professor Wilson and Assistant Professor Hallowell 

Political Science 224. Modern Political Theory.-3 s.h.<br>Professor Wilson and Assistant Professor Hallowell

Psychology 206. Social Psychology.-3 s.h.
Associate Professor Adams and Dr. Koch

## ZOOLOGY

> PROFESSOR GRAY, CHAIRMAN- 218 BIOLOGY BUILDING; PROFESSOR HARGITT, DIRECTOR OF GRADUATE STUDIES- 326 BIOLOGY BUILDING; PROFESSOK PEARSE; ASSOCIATE PROFESSOR WILBUR; ASSISTANT PROFESSORS BOOKHOUT, JEFFERS, AND JOHNSON

For admission to candidacy for the Master's degree the applicant should have completed an undergraduate major in zoology or its equivalent (courses in general science and botany cannot be counted as a part of the zoology major). This normally amounts to about twenty-four semester hours of course work, which should be distributed among the various fields of zoology and must include comparative anatomy of vertebrates or vertebrate zoology, physiology, and embryology. The major work must have been passed with good grades. At least one year of chemistry is required, and a year of physics is recommended. Work for the degree will require eighteen hours in advanced courses in zoology, six hours in a minor department, and a thesis.

For admission to candidacy for the Ph.D. degree it is expected that the undergraduate major in zoology will amount to about thirty-two hours which have been passed with good grades. Comparative anatomy of vertebrates or vertebrate zoology, physiology, and embryology must be included in the undergraduate major. At least two years of chemistry and one year of botany are required and one year of physics is recommended; for certain fields organic chemistry is desirable. Toward the end of the first year of residence a committee will be appointed for each candidate, which will review his preparation and set specific requirements to be met. This program will include one or more graduate courses in each of several fields of zoology; broad knowledge of science in general and of biology in particular, attained by wide reading; required major and minor courses, and research; and a satisfactory dissertation which is the result of original work. The Department requires that a first rlraft of the dissertation shall be completed by March 15 of the year in which the degree is to be conferred. At least one year before the degree is to be conferred each candidate must pass an examination on the whole field of zoology and the minor.

## FOR SENIORS AND GRADUATES

204. Advanced Parasitology.-Lectures, conferences, readings, and laboratory work dealing with practical and theoretical matters relating to animal prarasites. Offered in alternate years. Prerequisite: Zoology 161. 4 s.h.

Professor Pearse
222. Entomology.-Anatomy, physiology, embryology, and classification of insects. Prerequisite: one year of zoology. 4 s.h. Professor Gray
224. Vertebrate Zoology.-A study of the life histories, adaptations. ccology, and classification of vertebrate animals. Prerequisite: Zoology 53. 4 s.h.

Professor Gray
229. Endocrinology.-The structure, physiology, and embryology of the endocrine glands. Lectures, reading assignments, reports, and laboratory work. Prerequisites: Zoology 53, 92, and 151. 4 s.h. Assistant Professor Jeffers
274. Invertebrate Zoology.-A study of structure, functions, and habits of invertebrate animals under normal and experimental conditions. Field trips will be made to study, collect, and classify animals in their natural habitats. Offered in alternate years. Prerequisites: Zoology 1 and 2. 4 s.h.

Assistant Professor Bookhout
276. Protozoology.-The morphology, physiology, taxonomy, and culture of protozoa. Offered in alternate years. Prerequisites : Zoology 1 and 2. 4 s.h. Assistant Professor Bookhout

## FOR GRADUATES

303. Ecology.-Relation of animals to environment. Lectures, readings, reports, conferences; laboratory and field work. Offered in alternate years. 4 s.h.

Professor Pearse
306. Advanced Ecology.-Lectures, conferences, field work, and methods. Offered in alternate years. Prerequisite: Zoology 303. 4 s.h.

Professor Pearse
307. Foundations of Zoology.-Lectures, readings, and discussions on the background and training essential for a professional zoologist. Offered in alternate years. 2 s.h.

Professor Pearse
321. General Physiology.-Comparative study of functions in all animal groups, especially vertebrates. Lectures, laboratory work, and conferences. 4 s.h.

Associate Professor Wilbur
324. Advanced Physiology.-Present-day problems in physiology, with laboratory projects involving precise instrumental analyses. Lectures, conferences, and laboratory work. Prerequisite: Zoology 151 or 321. 4 s.h.

Associate Professor Wilbur
328. Experimental Embryology.-Lectures, readings, reports and laboratory work. Offered in alternate years. Prerequisites: Zoology 53, 92, 151, 156 or equivalents. 4 s.h. Assistant Professor Johnson
341. Historical and Philosophical Zoology.-Readings and discussions. A critical study of the developments of modern biological concepts and theories, their past and present significance. Offered in alternate years. 2 s.h.

Professor Hargitt
343. Cytology.-The structure of the cell. Lectures, readings, reports, and laboratory work. Offered in alternate years. Prerequisites: Zoology 53, 92,156 , or equivalents. 4 s.h.

Professor Hargitt
351-352. Zoological Journal Club.-A weekly meeting of graduate students and Faculty to hear reports and to discuss biological facts, theories, and problems. One hour a week throughout the year. Required of all graduate students who major in zoology. 2 s.h.

Staff
353-354. Research.-Students who have had proper training may carry on research under direction of members of the Staff, in the following fields:
(a) Embryology.

Assistant Professor Johnson
(b) Comparative and General Physiology.

Associate Professor Wilbur
(c) Histology; Cytology.

Professor Hargitt
(d) Invertebrate Zoology.
(e) Ecology; Parasitology.

Assistant Professor Bookhout

Professor Pearse<br>Professor Gray<br>Assistant Professor Jeffers

Hours and credits to be arranged.

355-356. Seminar.-Special seminar courses in particular fields are given by various professors when the number of students makes them desirable. Hours and credits to be arranged.
(a) Embryology.

Assistant Professor Johnson
(b) Comparative and General Physiology. Associate Professor Wilbur
(c) Histology; Cytology.
(d) Invertebrate Zoology.
(e) Ecology; Parasitology.
(f) Vertebrate Zoology; Entomology.
(g) Endocrinology.

Professor Hargitt
Assistant Professor Bookhout
Professor Pearse
Professor Gray
Assistant Professor Jeffers

# COURSES IN THE MEDICAL SCHOOL OPEN TO GRADUATE STUDENTS 

PROFESSORS F. BERNHEIM, EADIE, HALL, HETHERINGTON, MARKEE, PERLZWEIG, AND D. T. SMITH; VISITING PROFESSOR DAWSON ; ASSOCIATE PROFESSORS CONANT, DANN, HOLLINSHEAD, MCCREA, MARTIN, NEURATH, AND TAYLOR;

ASSISTANT PROFESSORS M. L. C. BERNHEIM, EVERETT, HANDLER, PEELE, AND SAWYER
The facilities of the departments listed below are available to qualified students for independent or supervised research and investigations whether working for advanced degrees or otherwise.

Graduate students desiring to pursue a major or a minor in any of the departments listed below or to be admitted to any of the courses listed below should consult or write to the Head of the Department concerned: Anatomy, Dr. J. E. Markee; Bacteriology, Dr. D. T. Smith; Biochemistry, Dr. W. A. Perlzweig; Physiology and Pharmacology, Dr. G. S. Eadie; Nutrition, Dr. W. J. Dann. Because of special schedules in the Medical School, graduate students are advised to write the Heads of the Departments for the exact dates of the different courses.


#### Abstract

ANATOMY M201. Gross Human Anatomy.-A course especially designed for graduate students, comprising a complete dissection of the cadaver. The laboratory work is supplemented by conferences which place emphasis on the biological aspects of the subject. Oct., 1946-Feb., 1947. Hours and credits (maximum 8 s.h.) by arrangement. Prerequisites: adequate training in comparative anatomy and embryology.

Dr. Markee and Staff M202. Microscopic Anatomy.-Conferences and laboratory work on the morphological characteristics of the tissues of the animal body. The work is based upon a study of fresh and prepared material and is approached from the physiological viewpoint. Oct., 1946-Feb., 1947. Hours and credits (maximum 3 s.h.) by arrangement. Prerequisite: adequate training in histology or cytology.

Dr. Markee and Staff M203. Anatomy of the Nervous System.-A study of the gross and microscopic structure of the human central nervous system, special attention being paid to the structural and functional relationships between the various nuclei and fiber tracts. Oct., 1946-Feb., 1947. Hours and credits (maximum 4 s.h.) by arrangement. Prerequisite: Anatomy M201.

Dr. Markee and Staff


## BACTERIOLOGY AND IMMUNOLOGY

M221. Bacteriology and Immunology.-This course is devoted primarily to the study of the biological and immunological relationships of microorganisms in disease. It is not a course in bacteriologic technique. An addi-
tional course in technical methods is provided for those who require it. Two hours lecture and 8 hours laboratory per week in fall quarter. Prerequisites: courses in general zoology, general botany, histology and comparative anatomy, general and organic chemistry. 4 s.h.

Dr. D. T. Smith and Staff
M323. Advanced Bacteriology and Immunology.-This course is intended primarily for graduate students majoring in bacteriology, but it is also available as a minor to such other graduate students in related fields, to whom it is recommended by respective supervising committees and with the approval of the Department of Bacteriology. 8 s.h.

Dr. D. T. Smith and Staff

## BIOCHEMISTRY

M241. General Biochemistry.-Three lectures, four laboratory periods of three hours each, and one two-hour seminar weekly for eighteen weeks. Prerequisites: general chemistry, organic chemistry, elementary physical and analytical chemistry, and at least one year of college biology. Feb.-June. 8 s.h. Dr. Perlzweig and Staff

M242. Biochemical Preparations.-Laboratory work with conferences when necessary. This course involves detailed study of the chemistry of enzymes, proteins, fats, carbohydrates and derivatives. Prerequisite: Biochemistry M241. Hours by arrangement. 2, 3, 4 s.h.

Drs. Perlzweig, Neurath and Handler
M243-244. Physical Chemical and Colloid Chemical Principles of Bio-chemistry.-Special emphasis is given to the structure and physical chemistry of proteins, enzymes, viruses, etc. 4 s.h.

Dr. Neurath
M341. Pathological Chemistry.-Seminar course devoted to a detailed study of the chemical and physical chemical aspects of normal and abnormal metabolism. Two hours per week by arrangement. Prerequisites: Biochemistry M241 and Physiology M261-2.

Laboratory work consisting chiefly of blood and urine analysis in relation to problems discussed will be provided for students desiring it.

Drs. Perlz weig, Taylor, and M. L. C. Bernheim
M343. Immunochemistry.-A seminar dealing with the fundamentals of immunological reactions in general and with the chemistry of antigen-antibody reactions in particular. 2 s.h.

Drs. Martin and Neurath
M345-346.-Seminar required of all graduate students majoring in Biochemistry, one hour per week. 2 s.h. Dr. Perlzweig and Staff

M347-348. Biochemical Research.-A laboratory course in which each student will be assigned to individual instructors for systematic planning and supervision of a research program continuing for at least one semester, preferably for the whole year. It will be integrated with the seminar course M345-6 by means of reading and preparation of reports. 2, 3, 4 s.h. per semester.

Drs. Perlzweig, Taylor, Neurath, Handler, and M. L. C. Bernheim

## PHYSIOLOGY, PHARMACOLOGY, AND NUTRITION

M261-2. Human Physiology.-Six lectures and twenty laboratory hours per week. Prerequisites: Anatomy M201 and Biochemistry M241 (or equivalents) and at least one year of college physics. Feb.-June, 1946. Credits depending on work taken. (Maximum 8 s.h.)

M363-4. Advanced Seminar in Nutrition.-Prerequisites: Biochemistry M241 and Physiology M261 or equivalents. Two hours weekly. 4 s.h.

Dr. Dann

M365. Respiration and Aero-Physiology.-A study of the fundamental respiratory processes in living organisms, and of the special physiological responses and adjustments of the individual during high altitude flight. Lectures, conferences, laboratory. Prerequisites: M261-2 or equivalent. 4 s.h. Dr. Hall

M367. Physiology of the Nervous System.-Presentation of the fundamental processes of nervous tissue and of the integration of these functions in man. Lectures, conferences, and laboratory. Prerequisites: M261-2 or equivalent. 2 s.h.

Dr. Eadie
M369. Pharmacology. Mode of Action of Drugs.-Studies and discussions of the pharmacological action of drugs in terms of biochemical and physiological processes. Lectures, conferences, and laboratory. Prerequisites: M261-2 or equivalent. 4 s.h.

Dr. F. Bernheim
M370. Seminar.-A weekly meeting of graduate students and staff in which papers reviewing classical and current physiological literature are reported. Required of all graduate students who are candidates for A.M. or Ph.D. degrees. 2 s.h. Dr. Eadie, Dr. Hall and Staff

M372. Research.-Individual investigations in the various fields of physiology. Credits to be arranged.

Staff

# ADVANCED DEGREES CONFERRED MAY 26, 1945 

## MASTER OF ARTS

Autry, Randall Franklin Braverman, Howard Bulwinkle, Muriel Charlton Clark, Ellen Mercer
Dillingham, Mary Marjorie Carter

Krathwohl, Betty Augenstine
Lewis, Nancy Eloise
Oates, Julia Neagle
Raskin, Vilma Leah

MASTER OF EDUCATION
Ellis, Ivy Mary Phillips
Miller, Sidney Franklin
Mathias, Ama Avis

## DOCTOR OF PHILOSOPHY

Adams, Joe Taylor, B.S., Southern Methodist University.
Dissertation: The Acylation and Alkylation of Certain Carbonyl Compounds.
Amore, Salyatore Thomas, A.B., Brooklyn College; A.M., Duke University. Dissertation: Derivatives of 9-Alkylphenanthrenes.
Deal, Carl Hosea, Jr., B.S., Duke University.
Dissertation: Dieleetrie Constant and Dielectric Loss Measurements of. Some Organic Compounds.

Evans, Alona Elizabeth, A.B., Duke University.
Dissertation: The Concept of Self-Executing Treaties in the United States.
Honges, Wiley Edward, B.S., Roanoke College; A.M., Duke University. Dissertation: Laissez-Faire in Virginia, 1789-1836.
Huff, Jesse William, B.S., University of Pittsburgh.
Dissertation: Studies on the Metabolism of Nicotinie Acid and of Pyridoxine.

Humm, Harold Judson, B.S., University of Miami; A.M., Duke University. Dissertation: A Study of Marine Agar-Digesting Bacteria of the Atlantic Coast.
Levine, Robert, A.B., A.M., Dartmouth College.
Dissertation: Certain Claisen Condensations Using Sodium Amide and Some Related Reactions.

Luborsky, Lester Bernard, A.B., Temple University; A.MI., Duke University. Dissertation: Some Factors Involved in Short Exposure Visual Perception with Speeial Reference to Aircraft Recognition Training.
Rapoport, Lorence, A.B., Harvard College.
Dissertation: The Synthesis of Derivatizes of the Careinogen 1, 2, 3, 4Dibenzophenanthrene.

Richards, Claud Henry, Jr., A.B., Texas Christian University; A.M., Duke University.
Dissertation: Jehovah's Witnesses: A Study in Religious Freedom.
Rudisill, Dorus Paul, A.B., Lenoir-Rhyne College; A.M., University of South Carolina; B.D., Lutheran Theological Southern Seminary; S.T.M., Hartford Theological Seminary.
Dissertation: The Doctrinc of the Atonement in Jonathan Edwards and His Successors.

Singer, Mary Rebecca White, A.B., Fairmont State Teachers College; A.M., Duke University.
Dissertation: Octazia Minor, Sister of Augustus: An Historical and Biographical Study.
Stabler, Carey Vitallis, B.S., A.M., University of Alabama.
Dissertation: The History of the Alabama Public Health System.
Stirewalt, Martin Luther, Jr., A.B., Lenoir-Rhyne College; A.M., Duke University.
Dissertation: The Letter in Greek Literature.
Taylor, Donald Lavor, B.S., M.S., Utah State Agriculture College.
Dissertation: Courtship as a Social Institution in the United States, 1930 to 1945.

Tompson, Reade Yates, Sc.B., Brown University.
Dissertation: The Vapor Phase Fluorination of Certain Organic Compounds, Representing Either Polynuclear Molecules, or Highly Deactivated Systems.

Wimberly, Rosamonde Ramsay, A.B., A.M., University of South Carolina. Dissertation: The Sequence-Pattern Concept of Social Change, with Especial Reference to Blindness and the Blind in South Carolina.

Wissow, Lennard Jay, B.S., Pennsylvania State College; A.M., Duke University.
Dissertation: Synthetic Applications of the Cyclodehydration Reaction.
Woodbridge, Charles Jahleel, A.B., A.M., Princeton University; Th.B., Princeton Theological Seminary.
Dissertation: The Chronicle of Salimbene of Parma: A Thirtecnth-Century Christian Synthesis.

## ADVANCED DEGREES AWARDED IN SEPTEMBER, 1944

MASTER OF ARTS

Breece, Ruth Isobel Schoenberger
Facinoli, Adele
Hertz, Hilda
King, Sara Edna
Mitchell, Edith Myrl
Pyle, Katherine Asenath

Roebuck, Julian Baker
Scarboro, Louise Bernice
Stallcup, Mary Jane
Tomlinson, Muriel Dorothy
Tracy, Helen Louise Wellman

## MASTER OF EDUCATION

Bowman, Audria Mae
Brosius, Magdalene Hershey
Coleman, Virginia Lee Creath, William Fontaine Dunn, Lucile Fant, Aletha Blackmore George, Austin Holly Gibson, Samuel Koonce Grose, Georgianna Mary Guesman, Adelaide Ivill Hanks, Thomas Edgar

Heagy, Dorothy May
Hendler, Cornelia Clara
McCurdy, John Albert
Malcolm, Pearle Malinda
Parker, Edna Earle
Pitts, Mabel Davidson
Prillaman, Mary Jane
Reed, Bruce
Stoner, Aaron Hess
Tanner, Agnes Vicars

# GRADUATE STUDENTS 

ACADEMIC YEAR, 1945-46
Name Home Address
Adams, Anne ShandA.B. (University of South Carolina), Bacteriology, Zoology.Columbia, S. C.
Alpert, Eugene Oliver Brooklyn, N. Y.A.B. (Duke University), Economics, Mathematics.
Anderson, Ernest Coleman Lenoir, N. C.A.B. (Duke University), Education, Political Science.
Anderson, Wilber Kenneth Yanceyville, N. C.
A.B. (Asbury College) ;Anglin, MiltonNew York, N. Y.B.S. (College of the City of New York), Psychology, Sociology.
Austin, Don Charlton Roseboro, N. C.A.B. (Wheaton College), Sociology, History.
Auxier, Charles Carson Silver Spring, Md.A.B. (Berea College), Economics, Political Science.
Ballard, Grady Lee Annapolis, Md.A.B. (Howard College), Education.Barbee, John Martin Charlotte, N. C.A.B. (Bob Jones College), Philosophy, Psychology, Political Science.
*Barbour, Ian Graeme Cincinnati, OhioA.B. (Swarthmore College), Physics, Chemistry.
Barnes, George Hector Corvallis, Ore.B.Sc.F. (University of Washington) ; M.S. (University of California), Forestry,Economics.
Barnett, Roberta Irene Chevy Chase, Md.A.B. (Woman's College of The University of North Carolina), Spanish, French.
Baxter, Joseph Ray Newport, Ky.
A.B. (Berea College) ; A.M. (Duke University), History.
Beaman, Mary ElizabethSumter, S. C.A.B. (Winthrop College), Mathematics.
*Bentley, Nancy JoyceDurliam, N. C.A.B. (Duke University), Botany, Bacteriology.
Berry, Lucia Kendall Durliamı, N. C.B.S. (Tufts College), Education, Psychology.
Birge, William Root Northampton, Mass.
A.B. (Princeton University), Psychology, Sociology.Blackburn, Lillian IoneMiami, Fla.
B.S. (Duke University), Chemistry, Physics.
Blair, Norman John Lynbrook, N. Y.*Bloom, Melvin SigmundGreenville, S. C.B.S. (Furman University) ; A.M. (Duke University), Chemistry.Harrisburg, Pa.
A.B. (Susquehanna University), Chemistry, Physics.Brandis, RoyallClearfield, Pa .
A.B. (Richmond College), Economics, Political Science.
Braverman, Elizabeth Miriam ParksDurliam, N. C.A.B. (Grinuel College), English.

- Enrolled under special science calendar July 1, 1945-June 30, 1946.

Name
Braverman, Howard
A.B. (Brooklyn College) ; A.M. (Duke University), History,

Brewer, Earl David Clarence
Bahama, N. C.
B.Ph., B.D. (Emory University), Sociology, Psychology.

Brice, Ashbel Green
A.B., A.M. (Columbia University), English.

Brothers, Joseph Grayson
A.B. (Duke University), Economics, Sociology.

Brownlee, William Hugh
A.B. (Sterling College); Th.B. (Pittsburgh-Xenia Theological Seminary), Religion, Greek, Latin.
Bruffey, Clarence Mason
A.B. (Marshall College), Education, Economics.

Bryson, Pauline Pressley
Oak Hill, W. Va.
Speedwell, N. C.
B.S. (Western Carolina Teachers College), Spanish, French.

Calvert, Henry Woodrow Atlanta, Ga.
B.S. (University of South Carolina), Economics.

Cannon, William Maury, Jr. Sylacauga, Ala.
A.B. (Birmingham-Southern College), Psychology, Education.
*Carr, Thomas Deaderick Umatilla, Fla.
B.S., M.S. (University of Florida), Physics.

Carroll, Howard
Easton, Md.
A.B. (University of Richmond); B.D. (Duke University), Religion.

Cavin, William Pinkney
A.B. (Wofford College), Chemistry, Physics.

Chernuchin, Vivian
A.B. (Queens College), Economics, History.

Clark, Ellen Mercer Keysville, Va.
A.B. (University of Richmond); A.M. (Duke University), Latin, Greek, Spanish.

Clark, Frank Eugene Elizabethton, Tenn.
A.B. (Dartmouth College), Mathematics, Physics.

Clavering, Rose
A.B. (Brooklyn College), Euglish.

Clees, James Cameron
A.B. (Duke University), English.

Cohen, Eckford
B.S. (Mississippi State College) ; A.M. (Duke University), Mathematics.

Conte, John Peter
Monongahela, Pa .
A.B. (Washington and Jefferson College), History, Education.

Coolidge, Cary
Nashville, Tenn.
A.B. (Blue Mountain College); A.M. (George Peabody College for Teachers), French, Spanish.
Cox, Robert Boyd Johnson City, Tenn,
A.B (University of Tennessee); A.M. (George Peabody College for Teachers),

English.
Craven, Clyde Rober Durham, N. C.
A.B. (Duke University), English.

Craven, Phoebe Forrestine Keeler
Durham, N. C.
A.B. (Duke University); A.M. (Boston University), English.

Culbertson, Jack Arthur
A.B. (Emory and Henry College), German.

Cummings, Anne Burt Stainback
A.B. (Hollins College), Psychology, Sociology.

* Enrolled under special science calendar July 1, 1945-June 30, 1946.

Name
Dale, Dorothy Jeanne Murray, Ky. A.B. (Murray-Kentucky State Teachers College), English.

Dillingham, William Pyrle Durham, N. C. B.A.E. (University of Florida); M.S. (University of Tennessee), Economics, Political Science.
Doren, Rosalyn Jeanne New York, N. Y.

DuBose, Samuel Wilds Hillsboro, N. C.
A.B. (Davidson College) ; B.D. (Union Theological Seminary); A.M. (Duke University), Religion.
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$\dagger$ Enrolled under special science calendar July 1, 1945-June 30, 1946.

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* Enrolled under special science calendar July 1, 1945.Junc 30, 1946.


# BULLETIN OF DUKE UNIVERSITY 

## The Divinity School



1945-1946
ANNOUNCEMENTS FOR 1946-1947

## PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA

## ANNUAL BULLETINS

For General Bulletin of Duke University, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of Undergraduate Instruction, apply to The Secrefary, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to The Secretary, Duke University, Durham, N. C.

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## BULLETIN

# OF <br> Duke University 



THE DIVINITY SCHOOL

1945-1946<br>ANNOUNCEMENTS FOR 1946-1947



The Chapel, Duke University

## CALENDAR

1946
Sept. 18. Wednesday-Dormitories open for occupancy.
Sept. 19. Thursday, $3: 30$ p.m.-First regular Faculty meeting.
Sept. 20. Friday, 9:00 A.м.-4:00 P.м.-Matriculation and registration of students. (All first-year men must register on this day. Second- and third-year men are urged to do so if possible.)
Sept. 21. Saturday, 9:00 A.M.-1:00 p.м.-Completion of registration. 9:00 A.M.-12:00 m.-Preliminary tests and assembly for new students.
Sept. 23. Monday, 8:00 A.m.-Instruction begins.
Sept. 24. Tuesday, 11:10 A.м.-Formal opening exercises.
Nov. 28. Thursday-Thanksgiving Day: a holiday.
Dec. 11. Wednesday-Duke University Day.
Dec. 20. Friday, 1:00 P.M.-Christmas recess begins.
1947
Jan. 3. Friday, 1:00 p.m.-Instruction is resumed.
Jan. 18. Saturday-Mid-year examinations begin.
Jan. 28. Tuesday-Mlid-year examinations end.
Jan. 29. Wednesday, 9:00 A.M.-4:00 P.M.-Matriculation and registration for second semester.
Jan. 30. Thursday, 8:00 A.m.-Second semester begins.
Feb. 10-12. Monday-Wednesday-Divinity School Convocation for Ministers.
March 22. Saturday, 1:00 p.M.-Spring vacation begins.
March 31. Monday, 8:00 A.m.-Instruction is resumed.
April 16-17. Wednesday, Thursday-English Bible examinations.
May 19. Monday-Final examinations begin.
May 29. Thursday-Final examinations end.
May 31-June 2. Commencement.

## GENERAL ADMINISTRATION

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RUSSELL, ELBERT, A.B., A.M., Ph.D., Litt.D. ,
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Admissions: Young, Branscomb, Cannon, Clark.
Alumni: Cannon, Hickman, Spence.
Chapel Services and Spiritual Life: Clark, Cleland, Petry, Rudin.
Curriculum: Branscomb, Cannon, Ormond, Cushman, Smith.
Dizinity School Bulletin: Spence, Branscomb, Cleland, Cushman, Petry. Extension: Hickman, Clark, Ormond, Spence.
Library: Petry, Cushman, Rowe.
Public Exercises: Smith, Cleland, Petry, Rowe.
Registration: Stinespring, Beach, Young.
Student Field Work: Ormond, Hart, Myers.

## THE DIVINITY SCHOOL OF DUKE UNIVERSITY

## GENERAL INFORMATION

## HISTORICAL STATEMENT

The present Duke University has gradually been developed from a simple beginning in a local school established in 1838 in the northwestern part of Randolph County, North Carolina. This school was enlarged in 1840 and named Union Institute. In 1841 it was incorporated as Union Institute Academy by the legislature of North Carolina. Under the leadership of President Braxton Craven, the Academy grew into an institution chartered as Normal College in 1851. An amendment to the charter in November, 1852, authorized Normal College to grant degrees, and two students were graduated in 1853 with the degree of Bachelor of Arts.

In 1859 the charter of Normal College was amended to place the institution under the control of the Methodist Episcopal Church, South, and the name was changed to Trinity College. Dr. John Franklin Crowell became president of Trinity College in 1887. The most important achievement of his administration was the removal of the College to Durham, North Carolina, which was accomplished by September, 1892.

President Crowell resigned in 1894, and was succeeded by the Reverend John Carlisle Kilgo, D.D. During President Kilgo’s administration the endowment of Trinity College was greatly increased, a library and other important buildings were erected, and notable progress was made by increasing the variety and improving the quality of the courses of instruction. A School of Law was established in 1904 by the gift of James B. and Benjamin N. Duke. In 1910 President Kilgo was succeeded by Dr. William Preston Few.

Trinity College experienced a great expansion in faculty, endowment, buildings, and equipment during President Few's administration. In December, 1924, James B. Duke established a $\$ 40,000,000$ trust fund for educational and charitable purposes. Trinity College accepted the terms of the Indenture of Trust on December 29, 1924, and on the following day the name of the institution was changed to Duke University. Mr. Duke's death in 1925 was followed by the announcement of munificent provisions in his will for the development of the University which bears his family name. Following the death of President Few in October. 1940, Dr. Robert Lee Flowers was elected as his successor on January 29, 1941.

## THE DIVINITY SCHOOL

The Indenture signed by Mr. James B. Duke, which established the University, mentioned first among its objects the training of ministers of the Gospel. The Divinity School was, accordingly, the first of the graduate professional schools to be organized. Its work began with the year 1926-27, the formal opening exercises being held on November 9, 1926.

The Reverend Doctor Edmund Davison Soper was the first dean of the Divinity School. He was succeeded in 1928 by the Reverend Doctor Elbert Russell, and the latter in turn in 1941 by the Reverend Doctor Paul Neff Garber. In 1945 Dean Garber was elected to the episcopacy of the Methodist Church, and the Reverend Doctor Harvie Branscomb assumed the duties of the dean's office.

## THE PURPOSE OF THE DIVINITY SCHOOL

The primary purpose of the Divinity School is to provide training for individuals planning to enter the Christian ministry. This includes not only prospectve ministers in local churches, but also those preparing themselves to be missionaries at home and abroad, directors of religious education, teachers of religion, and social workers. Vital to all of these forms of service is a full understanding of the beginnings, content, and history of the Christian faith and its special pertinence for the spiritual needs of the modern world. Studies of a broad and thorough character directed toward such an understanding constitute the center of the curriculum of the Divinity School and are regarded as the basic training for all prospective Christian workers. Specific training in the skills required of local ministers and of leaders in the work of religious education are also provided. As funds become available for the purpose and as needs appear, additional training in specialized skills and areas of knowledge will be added to the curriculum.

Though bound by ties of history and obligation to the Methodist Church, the Divinity School is multi-denominational in its interests and ecumenical in its outlook. Its faculty is limited to no one denomination, but draws upon the resources of them all. Students of the several denominations are admitted on the same basis. The Divinity School conceives its task to be one of broad service to the Church of Christ in all of its forms.

## THE RELATION OF THE DIVINITY SCHOOL TO DUKE UNIVERSITY

The Divinity School is an integral unit of the University and shares fully in its activities, privileges and responsibilities. The Sunday services in the University Chapel give the Divinity School students an opportunity to hear each year a number of the leading preachers of the country. The University Library, conveniently located next to the Divinity School Building, makes easily accessible a rich collection of approximately three quarters of a million volumes. Selected courses in the Graduate School of Arts and Sciences and in the professional schools are open to Divinity School students without payment of additional fees. The general cultural and recreational resources of the University are available to them on the same basis as other students.

## LIBRARY RESOURCES

The Divinity School has its own special library collection housed in the Divinity School Building. This collection, which contains materials dealing with the subject of religion, numbers approximately thirty-five
thousand volumes. It is rich in complete files of the more important religious journals and periodicals, in source materials, particularly for the study of American church history, missions and the history of religion, and in facsimiles of the more important manuscripts of the New Testament. One of the outstanding possessions of the Library is a magnificent Greek manuscript of the thirteenth or fourteenth century containing the entire text of the New Testament.

The general Library of the University is connected by a corridor with the Divinity School Building. It contains over seven hundred thousand volumes and receives the current issues of several thousand periodicals. The general Library contains also a catalogue of the library of the University of North Carolina located at Chapel Hill, twelve miles away, and a system of exchange operates between the two libraries so that books may be secured from that library also within a few hours.

## RELIGIOUS AND SOCIAL LIFE

One of the most important aspects of a program of training for religious service is the development of a warm and discriminating spiritual experience. The center of the corporate life of the Divinity School is its own place of worship, York Chapel. Regular chapel services are held at which all students are expected to be present. Services are led by members of the faculty, by visiting ministers, and by members of the student body. Ordination and other special services are held upon occasion. On each Sunday morning services are held in the University Chapel.

The student body of the Divinity School is united by a strong sense of fellowship and common interest. Student committees organize and supervise social service projects and missions of preaching, jail visitation, and related enterprises. Opportunities for occasional preaching are always available.

## PUBLIC LECTURES

In addition to the University lectures, the Divinity School brings to its own chapel each year a number of lecturers on aspects of contemporary religious thought and life. In February a three-day convocation for ministers is held which is addressed by a distinguished group of religious leaders. These public occasions are an important part of the educational program of the School.

## ENDOWED SCHOLARSHIP FUNDS

Certain special scholarship funds have been established, the income of which is available for students wishing to secure training in preparation for the Christian ministry. Mr. P. Huber Hanes of Winston-Salem, North Carolina, an alumnus of Duke University of the Class of 1900 and a member of the Board of Trustees, has established an annual scholarship yielding the sum of $\$ 400$. The scholarship bears the name of the donor.

In 1939 Mr. N. Edward Edgerton of Raleigh, North Carolina, an alumnus of Duke University of the Class of 1921, a member of the Board of Trustees of the University and a member of the Committee on
the Divinity School, established the N. Edward Edgerton Fund. The award is limited to students who are candidates for the B.D. degree.

In 1942 the Alumni Association of the Divinity School established a scholarship fund in honor of Elbert Russell, Dean Emeritus of the Divinity School and for a number of years Professor of Biblical Theology.

In 1946 the Forest Hill Methodist Church established a scholarship fund in memory of $W$. R. Odell, for many years a member of the Board of Trustees of the University.

In addition to these endowed scholarships there are available for students preparing for the Methodist ministry approximately sixty work scholarships provided by the Duke Endowment for aiding rural Methodist churches in North Carolina. Terms of these scholarships are given on page 13 of this catalogue. At the meeting of the Southeastern Jurisdictional Conference of the Methodist Church fifteen similar work scholarships were appropriated.

These scholarships are all awarded on the basis of service performed in a local church, thus providing for the student experience as well as financial aid.

## COURSES OF STUDY OFFERED BY THE DIVINITY SCHOOL

The Divinity School offers at present two courses of study. The basic course is that which leads to the degree of Bachelor of Divinity. This is a three-year course and is recommended to all those preparing themselves for the work of the regular pastoral ministry.

Beginning with the year 1944-45 the Divinity School offered also a course of study leading to the degree of Master of Religious Education. This course is designed for individuals who wish to become directors or to take other specialized positions in the work of religious education. The course does not provide a general preparation for the work of the regular ministry and cannot serve as a substitute for it. No exchange of credits between the two courses is permitted, nor can courses taken be credited toward more than one degree. Only a limited number of candidates for the Master of Religious Education degree will be accepted annually.

The requirements for each of these degrees are stated on pages 14 through 17 in this catalogue.

## COURSES OF STUDY IN RELIGION OFFERED BY THE GRADUATE SCHOOL OF ARTS AND SCIENCES

Students who desire to pursue work in religion beyond that for the Bachelor of Divinity degree should register in the Graduate School of Arts and Sciences, through which the degrees of Master of Arts and Doctor of Philosophy may be obtained. This advanced work is administered through the Department of Religion of the Graduate School and is available to qualified persons of all denominations on an equal basis. Study and research may be pursued in three fields: (1) Biblical Studies; (2) Studies in Church History; and (3) Studies in Christian

Thought. A list of courses approved by the Graduate Council for work in these fields, together with general requirements for admission to the Graduate School, may be found in the Bulletin of the Graduate School. This Bulletin is available on application to Dean Calvin B. Hoover, the Graduate School of Arts and Sciences, Duke University.

A limited number of University Scholarships and Fellowships, among which are two Gurney Harriss Kearns Fellowships of $\$ 700$ each, may be obtained by exceptionally qualified students. Applications for these must be submitted to Dean Hoover on University form blanks not later than March 15 of each year.

Inquiries concerning specific requirements of the Department of Religion in the Graduate School should be addressed to Professor H. Shelton Smith, Director of Graduate Studies in Religion.

## FACILITIES FOR ADVANCED STUDY IN THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

The Divinity School of Duke University is one of the supporting members of the American Schools of Oriental Research. Accordingly, students in the Divinity School have the privilege of attending the American School in Jerusalem or the one in Bagdad without charge for tuition. They may also compete for the financial aids which are offered annually by the Schools. These consist of four fellowships, the stipends depending upon available funds.

# COSTS, RESIDENTIAL ARRANGEMENTS, AND STUDENT AID 

## FEES AND COSTS


#### Abstract

The University tuition charge is $\$ 100$ per semester. This is remitted in whole or in part to students matriculated in the Divinity School in accordance with need. Other charges are as follows:


## Fiees per semester:

Matriculation Fee ............................................. $\$ 25.00$
Library Fee ....................................................... 5.00
Hospital Fee ....................................................... . . . . . . . . 5.00
Damage Fee ...................................................... . . 1.00

Approximate cost of meals per semester .................... $\quad 150.00$
Room per semester .............................................. 62.50
Total per semester .............................................. $\$ 248.50$
Students wishing to purchase admission books to all athletic contests held by the University may do so at a charge of $\$ 5.00$ per semester.

Each student is assessed, in the last semester before a degree is conferred, a Commencement Fee of $\$ 3.00$ and a Diploma Fee of $\$ 5.00$. The latter fee is refunded if the diploma is not awarded.

## LATE REGISTRATION

Students matriculating in either semester at a date later than that prescribed in the catalogue shall pay to the Treasurer of the University a penalty of $\$ 5.00$.

## DINING HALL

The dining halls in the University Union have accommodations for all resident Divinity School students. The meals furnished in the Union are supervised by trained dietitians. The price of board in the University dining halls is approximately $\$ 35.00$ per month. A la carte service can be secured in the Union Coffee Shop.

A number of students are able to defray the cost of board by securing part-time employment in the University Union.

## LIVING QUARTERS

Divinity School students are housed in the University dormitories along with other graduate and professional students. Application for room assignments should be addressed to the Director in the Business Division, Duke Station, Durham, N. C. The cost of a single room is $\$ 75$ per semester, of a double room $\$ 62.50$ per student per semester. A reservation fee of $\$ 25$ is required at the time a room is assigned. This reservation fee is deducted from the room charges at the time of registration. Students are urged to apply for rooms as early as possible. Under
present circumstances delays are likely to result in failure to secure accommodations. Students occupying rooms in the dormitories who wish to retain their rooms for a following year must notify the Office of the Director in the Business Division by May 15.

All rooms in the dormitories are provided with heat, water, electric lights, and essential furniture. Each student furnishes his own blankets, sheets (mattresses $39^{\prime \prime} \times 74^{\prime \prime}$ ), pillows and pillow slips, towels, rugs and curtains.

The University has no apartments for married students. Students desiring such quarters should plan to arrive in Durham as early as possible before the opening of the fall semester in order to make their living arrangements. While the Divinity School Office will assist wherever it can in these matters, it cannot assume responsibility for making such arrangements.

## STUDENT AID

Duke University remits its regular tuition charge to all students enrolled in the Divinity School insofar as this aid is needed. Scholarship aid, over and above this, is available only in the form of work scholarships. The funds for these scholarships come from the sources described on pages 9 and 10 of this catalogue. Those appointed to these scholarships agree to give ten weeks' service during the summer months to a church to which they are assigned. In return they receive their board and room for the period of their summer service and $\$ 400$. This latter sum is made available during the academic year preceding the summer work if desired. By special arrangement a student may be assigned to a church for five weeks' work with one-half the stated remuneration.

This plan of scholarship aid has several advantages. It provides an opportunity for earning a large part of the year's expenses, while at the same time assuring the student valuable experience in religious leadership.

Students who must have additional income over and above their summer's earnings may secure part-time employment during the academic year. They are strongly urged, however, to make their arrangements, if possible, so that they will not have duties which will prevent them from taking the fullest advantage of the educational and cultural opportunities of the Divinity School.

## REQUIREMENTS FOR GRADUATION

## REQUIREMENTS FOR ADMISSION

Candidates for admission must be graduates of colleges of recognized standing whose college record is such as to indicate their ability to carry on graduate professional studies. They will be admitted without examination on presentation of an official transcript of college and other academic credits which they may have secured. The application of students from foreign countries will be considered each on its own merits, the general principle being that a training equivalent to that of a baccalaureate degree from an accredited American college must have been secured. Women will be admitted on the same basis as men. Graduates of non-accredited colleges will be considered on their merits, but only those who give evidence of special promise will be admitted. In addition to an adequate academic preparation, applicants must satisfy the Faculty as to their Christian character and purpose. A formal application blank inay be secured from the Dean of the Divinity School. This must be filled out and returned by all candidates for admission.

## PRESEMINARY CURRICULUM

The Divinity School, in substantial agreement with the standards of the American Association of Theological Schools, recommends that prospective candidates for admission keep in mind the desirability of including the following in their undergraduate curriculum:

Two years' work in English literature and composition.
Two years in a foreign language.
One semester each in psychology, philosophy, and sociology (or economics).
One year in history.
An introduction to the natural sciences with adequate laboratory work (biology or one of the physical sciences).
Proficiency in public speaking.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF DIVINITY

The requirements for the degree of Bachelor of Divinity are the following:

Completion of ninety semester hours of course work, including the required courses listed on the following page.

Selection of a major field of study, in which fifteen semester hours of work shall be completed including the courses required of all students in that field.

Demonstration of a detailed knowledge of the contents of the narrative portions of the English Bible. An examination for this purpose is
given each spring. The dates for this examination for the academic year 1946-47 will be April 16-17, 1947.

The writing of an adequate thesis.
Students who show deficiencies in English composition will be required to take special training in addition to meeting the other requirements for the degree.

The course leading to the degree of Bachelor of Divinity is planned to cover three years of normal academic work. In no case will this degree be conferred on a student until he has spent at least two semesters in residence in the Divinity School. This is defined as the completion of thirty semester hours of work.

## REQUIRED COURSES FOR THE DEGREE OF BACHELOR OF DIVINITY Old Testament

203-204. Introduction to the Old Testament 6 s.h.
New Testament
213-214. The Beginnings of Christianity 6 s.h.
Christian Doctrine
221. Introduction to Theology 3 s.h.
222. Introduction to Christian Theology 3 s.h.

Church History
233. Church History to the Reformation 3 s.h.
234. History of the Evangelical Movement 3 s.h.

American Religious Thought
296. The Rise of American Christianity

Homiletics
241. Effective Speaking 3 s.h.
243. Sermon Construction 3 s.h.

Practical Theology
252. Church Administration 3 s.h.

Religious Education
261. The Educational Work of the Church

3 s.h.
Psychology of Religion
271. Psychology of Religion 3 s.h.

Philosophy of Religion and Christian Ethics
291. Christian Ethics I 3 s.h.

History of Religion and Missions
281. Living Religions of the World 3 s.h.
282. Missions 3 s.h.

Social Ethics
*236. Social Ethics 3 s.h.

* Required of students who have not completed at least three semester hours of undergraduate sociology.


# DISTRIBUTION OF REQUIRED COURSES BY YEARS 

Fall Semester

Spring Semester
Required in the First Ycar
Old Testament 203 or New Testa- Continuation of Biblical course begun ment 213
Church History 233
History of Religion 281
*Homiletics 241 (Speech)
in fall semester
Church Administration 252
$\uparrow$ American Religious Thought 296

Required in the Second Year

Christian Doctrine 221
Religious Education 261
Homiletics 243

Christian Doctrine 222
Missions 282

Required in Either First or Second Year
Old Testament 203 and New Testa- Old Testament 204 and New Testament 213
Psychology of Religion 271 ment 214

Christian Ethics 291
All required courses must be completed by the end of the second year.

## THE SELECTION OF A MAJOR FIELD

Each student must select a department in which he elects to major and in which he will write his thesis. He must take fifteen semester heurs in the department, including the general requirement in that department. He may also take his major in English Bible. To major in this field he must complete nine semester hours in the departments of Old and New Testament in addition to the required work in those departments. Of these nine semester hours, six must be taken in one of the two departments and three in the other. Credit for the thesis is not counted toward the completion of the major.

## THESIS

The thesis, required of all students for graduation, shall be of such a character as to evidence special competence in a selected field of study and an ability to carry out and to state clearly independent investigations. The thesis shall be written in the major field of study preferably in connection with an advanced course. The subject shall be approved by the major professor.

The thesis shall be from fifty to seventy-five pages in length. Two typewritten bound copies shall be presented to the instructor, one of which will be returned to the student after the thesis has been read and approved. The thesis, when approved, shall carry three semester hours credit. All theses shall be submitted in final form on or before May 15th of the year of graduation.

[^52]
## NORMAL SCHEDULE OF WORK

The normal schedule is fifteen semester hours per semester. For students carrying the responsibilities of pastoral charges the maximum load is twelve semester hours per semester. No students may increase their schedules beyond these limits except for one semester of the middle year when students with superior records may add three semester hours, and for the final semester before graduating when three semester hours may be added if this is necessary in order to complete the requirements for graduation.

## SPECIAL REGULATIONS

Grades of incomplete received at the end of the fall semester must be removed by the completion of the work of the course not later than March 15. Grades of incomplete received at the end of the spring semester must be removed by October 1. If the work of the course is not completed by these dates, the grade shall be recorded as $F$.

No student shall be permitted to drop a course after the expiration of one-third the period of instruction of the course without incurring failure except for causes adjudged by the dean to be beyond the student's control.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF RELIGIOUS EDUCATION

The course of study leading to this degree is designed to provide training primarily for individuals desiring to become educational assistants in churches or to engage in other forms of Christian education.

Candidates for this degree must be graduates of accredited colleges with academic and personal records which afford promise of competence in this area of service. The course of study will be especially useful for individuals who have had one or more years of experience in religious education and desire further training. Candidates for this degree will be limited in number, and individuals interested are urged to apply for admission well in advance of the opening of the academic year.

Certain prerequisite studies must have been taken by the candidate during the course of his academic training or must be secured, without credit toward the M.R.E. degree, after being admitted to the Divinity School. These are the following:

| General Psychology | 6 s.h. |
| :--- | :--- |
| Sociology | 6 s.h. |
| Biblical Studies (including work in both the Old and the | 6 s.h. |
| New Testament) |  |

Thirty semester hours of academic work are required for graduation. Eighteen of the semester hours must be in the following fields:

| Religious Education | $6 \mathrm{~s} . \mathrm{h}$. |
| :--- | :--- |
| Psychology of Religion | 3 s.h. |
| Christian Ethics or Social Ethics | $3 \mathrm{s.h}$. |
| Biblical Studies | 6 s.h. |

The candidate must also engage in practice teaching in a church school or undertake some other approved project and must submit a written report covering this practical experience. This work will be under the supervision of the Department of Religious Education.

# COURSES OF INSTRUCTION* 

## I. DIVISION OF BIBLICAL STUDIES OLD TESTAMENT

201-202. First Hebrew.-The principles and structure of the Hebrew language with translation of selected Old Testament narratives. 6 s.h.

Mr. Stinespring
203-204. Introduction to the Old Testament.-The origin, literary forms, and contents of the books of the Old Testament in their geographical and historical setting. 6 s.h.

Mr. Stinespring
205-206. Elementary Arabic.-No prerequisite, but one year of Hebrew recommended as preparation. 6 s.h. Mr. Stinespring
[Not offered in 1946-47]
207-208. Second Hebrew.-Samuel or Kings the first semester and Isaiah the second. 6 s.h.

Mr. Stinespring
301. The Religious Thought of Post-Exilic Judaism.-A critical study of the religious and ethical ideas of the more important later writings of the Old Testament and the Apocrypha. Prerequisite: Old Testament 203-204. 3 s.h. Mr. Young
304. Aramaic.-A study of the Aramaic portions of the Old Testament, and selected passages from the Targums, Midrashes, and Talmuds. 3 s.h.

Mr. Stinespring
305. Third Hebrew.-A study of late Hebrew prose, with readings from Chronicles, Ecclesiastes, and the Mishnah. 3 s.h.

Mr. Stinespring
309. History of the Ancient Near East.-A specialized study of the civilizations of Egypt, Palestine, Syria, and Mesopotamia from the standpoint of Biblical archaeology. 3 s.h.

Mr. Stinespring
[Not offered in 1946-47]
310. Old Testament Prophecy.-A study of the social teachings of the Old Testament with special reference to the prophets of the eighth century B.C. 3 s.h.

Mr. Stinespring
401-402. Thesis Seminar.-For students majoring in the Department of Old Testament. Departmental Staff

## NEW TESTAMENT

211-212. Hellenistic Greek.-Designed for beginners to enable them to read the Greek New Testament. 6 s.h., provided the student takes six semester hours in New Testament Greek the following year.

Mr. Young
213-214. The Beginnings of Christianity.-A survey course dealing with the background, the beginnings, and the early history of Christianity. Special attention is given to the creation of the literature of the New Testament. 6 s.h.

Mr. Clark

* On recommendation of the professor in charge of the major field, courses offered in the Graduate School of Arts and Sciences other than those approved for credit in the Divinity School may be approved for credit in individual cases, provided no equivalent course is offered in the Divinity School; each case to be decided on its merits.

217. The New Testament in Greek.-Extensive reading of the Greek text of the New Testament with special emphasis upon its interpretation. Prerequisite: six semester hours' study of the Greek language. 3 s.h. Mr. Clark
218. Galatians and I Corinthians.-A detailed study of two of Paul's major epistles. The course will be based on the Greek text. Prerequisite: New Testament 217 or its equivalent. 3 s.h.

Mr. Clark
[Not offered in 1946-47]
219. Life of Paul.-A study of Paul's life on the basis of Acts and the letters of Paul, emphasizing the permanent values in Paul's work and his contribution to the world. 3 s.h.

Mr. Myers
220. I Peter and the Gospel of John.-A detailed study of two of the non-Pauline writings of the New Testament. The course will be based on the Greek text. Prerequisite: New Testament 217 or its equivalent. 3 s.h.

Mr. Clark
311. The Life and Teachings of Jesus.-Prerequisite: New Testament 213-214. 3 s.h. Mr. Branscomb
312. New Testament Theology.-The religious teachings of the books of the New Testament. Prerequisite: New Testament 213-214. 3 s.h.

Mr. Young
313. Apostolic Fathers.-A study of the Christian development from Clement of Rome to Polycarp, with readings in the Greek text. 3 s.h.

Mr. Clark
314. Patristic Greek.-Portions of the Greek Fathers from Justin Martyr to Eusebius will be read. Prerequisite : New Testament 217-218 or its equivalent. 3 s.h.

Mr. Young
316. Hellenistic Religions at the Beginning of the Christian Era.-Prerequisite: New Testament 213-214. 3 s.h.

Mr. Clark
318. Text of New Testament.-A study of the materials for the reconstruction of the text, the principles of textual criticism, and the history of the text. Practical exercises in the use of manuscripts and facsimiles will be given. Prerequisite: New Testament 213-214 and a reading knowledge of Greek. 3 s.h.

Mr. Clark
411-412. Thesis Seminar.-The materials and methods for the investigation of New Testament problems, with individual research done under the direction of the members of the Department. Admission by special permission.

Departmental Staff
315. Judaism at the Beginning of the Christian Era.-A study of Judaism from the time of Ben Sirach to the writing of the Mishna. Prerequisite: New Testament 213-214. 3 s.h.
[Not offered in 1946-47]
320. Rabbinic Literature.-Critical readings in Rabbinic literature in the early centuries of the Christian era. Prerequisite: New Testament 213-214. 3 s.h.
[Not offered in 1946-47]

## II. DIVISION OF HISTORICAL STUDIES HISTORY OF RELIGION AND MISSIONS

281. Living Religions of the World.-A survey of the religious systems of India, China, and Japan, followed by a study of Judaism, Mohammedanism, and Christianity, the object being to trace the historical development of each religion. 3 s.h.

Mr. Cannon
282. Missions.-The history and philosophy of the missionary enterprise. 3 s.h.

Mr. Cannon
283. The Religions of the Far East.-A study of the religious systems of China and Japan. 3 s.h.

Mr. Cannon
284. Comparative Religion I.-The ideas of God, sin, and salvation in the religions of the world. Prerequisite: 281. 3 s.h.

Mr. Cannon
286. Comparative Religion II.-Ideas of the future life and ethical and social ideals in the religions of the world. Prerequisite: 281. 3 s.h.
[Not offered in 1946-47]
Mr. Cannon
287. Mohammedanism.-The life of Mohammed and the religion of Islam, special attention being given to the Koran and its teachings. The aim is to interpret Mohammedanism as a force today. Prerequisite: 281. 3 s.h.

Mr. Cannon
288. The Religions of India.-A study of present-day religious movements in India, with special reference to Hinduism. 3 s.h. Mr. Cannon
289. Buddhism.-India at the rise of Buddhism. Life of the Buddha and the teachings of early Buddhism. Development into the Hinayana and Mahayana schools, its spread and present condition in southern and eastern Asia. Prerequisite: 281. 3 s.h.

Mr. Cannon
[Not offered in 1946-47]
481-482. Thesis Seminar.-Problems of research in History of Religion and Missions. Open to advanced students on approval of the instructor. Prerequisite: six semester hours in the department.

Mr. Cannon

## CHURCH HISTORY

233. Church History to the Reformation.-A survey of the growth of the Christian Church from the Apostolic Age to the Reformation. 3 s.h.

Mr. Petry
234. History of the Evangelical Movement.-Beginning with the Lutheran Reformation, this course traces the rise, growth, influence, and history to 1800 of the Calvinistic, Anglican, Reformed, Quaker, Baptist, and Methodist movements. 3 s.h.

Mr. Petry
[Not offered in 1946-47]
331. The Social Message of the Early and Medieval Church.-A study of the social teachings of the Christian Church prior to the Protestant Reformation, stressing the contributions of Christianity to social progress. Prerequisite: Church History 233-234. 3 s.h.

Mr. Petry
332. The Medieval Church.-Outstanding characteristics of the Medieval Church, emphasizing theory, polity, institutions, sacraments, and worship. Prerequisite: Church History 233-234. 3 s.h.

Mr. Petry
[Not offered in 1946-47]
333. A History of Christian Renunciation in the Middle Ages.-A study of the renunciatory ideal and of spiritual practices with special reference to Benedictines, Franciscans, Lowland mystics, and leading seculars. Prerequisite: Cilurch History 233-234. 3 s.h.

Mr. Petry
334. Church Reformers and Christian Unity.-The work of such reformers as Marsilius of Padua, William of Ockham, John Gerson, Pierre d'Ailly and Nicholas of Cusa in relation to ecclesiastical schism and the search for Christian unity through representative councils. 3 s.h.

Mr. Petry
[Not offered in 1946-47]
336. Religious Leaders of the Early and Medieval Church.-Among those to be studied are Justin Martyr, Origen, Cyprian, Athanasius, Jerome, Augustine, Benedict of Nursia, Gregory VII, Abelard, Innocent III, Francis of Assisi, Thomas Aquinas, and John Wyclif. Prerequisite: Church History 233-234. 3 s.h.

Mr. Petry
[Not offered in 1946-47]
339. Methodism.-A study of the beginnings and growth of the Methodist societies in England, of early Methodism in America, and of the development of the several branches of the Methodist Church in America. Prerequisite: Church History 233-234. Spring semester. 3 s.h.

Mr. Rowe
437-438. Thesis Seminar.-Principles and practice of research.
Departmental Staff

## AMERICAN RELIGIOUS THOUGHT

296. The Rise of American Christianity...An historical survey of the development of American religious life and thought. 3 s.h. Mr. Smith
297. Religious Thought in Colonial America.-An exposition and evaluation of colonial movements in religious thought. 3 s.h.

Mr. Smith
396. Religious Thought in the Nineteenth Century.-An exposition and evaluation of nineteenth century developments in American religious thought. 3 s.h.

Mr. Smith
397. Religious Thought in America Today.-A critical analysis of the leading tendencies in American religious thought since 1900. 3 s.h.

Mr. Smith
398. Modern American Christology.-An analysis of the historical development of modern American conceptions of the person and work of Christ. A seminar for advanced students. 2 s.h.

Mr. Smith
399. Social Thought in American Christianity.-A study of Christian social thought in America since 1850. 3 s.h.
[Not offered in 1946-47]
495-496. Seminar in American Religious Thought.-Topic for 1946-47: A critical study of religious naturalism with special reference to William James, George H. Meade, and John Dewey. 4 s.h.

## III. DIVISION OF THEOLOGICAL STUDIES Christian doctrine

221. Introduction to Theology.-An examination of types of theological method and an indication of some of the results obtained through a resort to observation and experience in theological investigation. 3 s.h. Mr. Rowe
222. Introduction to Christian Theology.-An introductory study of the principal doctrines of the Christian religion. 3 s.h. Mr. Cushman
223. Soteriology.-A study of the Christian doctrine of salvation and a comparison of the various ways by which the saving power of God is understood to take effect in personal and social life. Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Rows
226. Eschatology.-A study of "the last things" in the light of the Christian hope for the individual and for society with special consideration of the Christian doctrine of immortality. Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Rowe
321-A. Platonism and Christianity.-An analysis of Plato's philosophy and a survey of its continuing influence in Hellenistic and Christian thought. Prerequisite: six semester hours in philosophy or its equivalent (Christian Doctrine 221). 3 s.h.

Mr. Cushman
322-A. Theology and Philosophy in the Nineteenth Century.-A study of Protestant thought from Schleiermacher to Troeltsch, together with representative theologians of Britain. Prerequisite: six semester hours in philosophy or its equivalent (Christian Doctrine 221). 3 s.h.

Mr. Cushman
324. The Content of Christian Doctrine.-A study of the systematic theologies of certain outstanding theologians with a view to enabling the student to work out a system of his own. Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Rowe
[Not offered in 1946-47]
325-A. Philosophical Theology I.-Analys is and critique of dominant types of contemporary world-views for the formulation of the problem of philosophical theology. Main problems in the history of philosophical theology. Prerequisite: six semester hours in philosophy or Christian Doctrine (221222). 3 s.h.

## Mr. Cushman

326-A. Philosophical Theology II.-Historical and constructive approach to the problem of faith and reason, God and evil. Prerequisite: Christian Doctrine 421. 3 s.h.

Mr. Cushman
327. Arminian Theology.-A study of Arminianism in the religious thought of England and America with special reference to the system of doctrine contained in the theological writings and doctrinal standards of Methodism. Prerequisite: Christian Doctrine 221. 3 s.h. Mr. Rowe
328. Current Theology.-A survey of the fields of current theology with special attention given to the most significant and influential movements of reconstruction and reaction in contemporary Christianity. Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Rowe
329. The Person and Work of Christ.-An intensive examination of the classical types of christological and soteriological theories in the history of Christian thought, assessment of their presuppositions and constructive evaluation. Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Cushman
427-428. Thesis Seminar.-A seminar in thesis guidance. For students majoring in the Department of Christian Doctrine.

Departmental Staff

## Christian ethics

291. Christian Ethics I.-The central assumptions and principles of the Christian conception of the good life. 3 s.h.

Mr. Beach

292. Christian Ethics II.-The application of Christian ethics to life in modern society with particular emphasis on the ethical problems of the typical American community. Prerequisite: 291. 3 s.h.

Mr. Beach
391-392. Historical Types of Christian Ethics.-A critical study of representative documents of Christian ethical theory. Prerequisite: 291 or its equivalent. $6 \mathrm{~s} . \mathrm{h}$.

Mr. Beach
394. Christianity and the State.-The relation of the Christian theory of the State to political problems with special consideration of the religious assumptions underlying democratic theory and practice. 3 s.h. Mr. Beach

## PSYCHOLOGY OF RELIGION

271. Psychology of Religion.-An analysis of the major factors in religious experience. 3 s.h. Mr. Hickman
272. Advanced Psychology of Religion.-An intensive study of the foundations and presuppositions of religious experience. 3 s.h.

Mr. Hickman
373. Psychology of Preaching.-A psychological study of the preaching motive and of preaching relationships. 3 s.h. Mr. Hickman
374. Pastoral Psychology.-Study of psychological problems and principles involved in pastoral work. 3 s.h.

Mr. Hickman
375. Genetic Psychology of Religion.-A study of the religious experience of childhood and youth. 3 s.h.

Mr. Hickman
[Not offered in 1946-47]
376. Studies in Mysticism.-An examination of the mystical aspect of religious experience. 3 s.h. Mr. Hickman
[Not offered in 1946-47]
*203. The Philosophy of Conduct.-A critical study of the fundamental problems of ethics. 3 s.h. Mr. Patterson
*209. Philosophy of Religion I: Philosophical Introduction.-Religion viewed from the standpoint of consideration of deity. 3 s.h. Mr. Widgery
[Not offered in 1946-47]
*210. Philosophy of Religion II: Philosophical Introduction.-Religion viewed from the standpoint of the nature of man, his origin and destiny. 3 s.h. Mr. Widgery
[Not offered in 1946-47]
*226. The History of Ethics.-Theories of morality from Socrates to the present time. 3 s.h.

Mr. Patterson

## IV. DIVISION OF PRACTICAL STUDIES HOMILETICS

241. Effective Speaking.-Fundamentals of preparation and delivery to develop effectiveness in private and public speech. Individual conferences. 3 s.h.

Mr. Rudin
243. Sermon Construction.-An investigation of the theory of preaching, with detailed work in practice preaching. Prerequisite: 241. 3 s.h.

Mr. Cleland
244. Practical Problems in Preaching.-Analysis of selected sermons and discussion of problems facing the preacher in the pulpit. Practice preaching. Prerequisite: 243. 3 s.h.

Mr. Cleland
246. Oral Interpretation of Literature.-A course for advanced students designed to develop effectiveness in reading aloud the Bible and other commonly used materials of public worship. Individual conferences. Prerequisite: 241. 2 s.h.

Mr. Rudin
346. Materials of Preaching-Biblical.-The problem of authority in the Bible and an evaluation of selected portions of the Bible for present-day preaching. Prerequisite : 243 and at least 9 s.h. of O.T. and N.T. 3 s.h.

Mr. Cleland

[^53]348. Materials of Preaching-Non-Biblical.-An evaluation of great lit-erature-drama, poetry, biography, fiction-from the point of view of their value for modern preaching. Prerequisite: 243. 3 s.h.

Mr. Cleland
[Not offered in 1946-47]

## PRACTICAL THEOLOGY

252. Church Administration.-The minister's qualifications for church administration ; the minister's service in managing the church organization and supervising the program. 3 s.h.

Mr. Ormond
253. Field Work I.-This course is required of all students who are engaged in any type of field work, except summer field work under the Duke Endowment plan. It is designed to help the students with their personal and parish problems and to develop techniques for successful service. 1 s.h.
[Not offered in 1946-47]
Mr. Ormond
254. Field Work II.-A required course for all students who work under the Duke Endowment plan. The purpose of the course is to emphasize the training values of field work. 1 s.h.

Mr. Ormond
353. The Rural Church.-A study of rural conditions with special emphasis upon the church as a community institution. 3 s.h. Mr. Ormond
354. Parish Evangelism.-A study of effective modern methods of evangelism in the local church. 3 s.h.

Mr. Ormond
355. Public Worship and Ordinances of the Church.-The principles and practice of public worship; attention to the use of the ritual in the church. 3 s.h.

Mr. Ormond
356. The Urban Church.-A study of the function of the church in towns and cities with special attention to the church in industrial centers. 3 s.h.
[Not offered in 1946-47]
Mr. Ormond
357. The Polity of the Methodist Church.-The study will be based upon the Methodist Discipline. 1 s.h.

Mr. Ormond
357-B. The Polity of the Baptist Churches.-1 s.h.
Mr. Barnett
357-C. The Polity of the Congregational-Christian Churches.-1 s.h.
Mr. Harrell
[Courses on the polity of other churches will be arranged as needed.]
358. Church Music.-A study of hymnology, song leading, and problems of the modern church choir. 3 s.h.

Mr. Barnes
457-458. Thesis Seminar.-A seminar in thesis guidance. For students majoring in the Department of Practical Theology.

Mr. Ormond

## religious education

261. The Educational Work of the Church.-A consideration of the total task of the church from an educational viewpoint. Attention will be given to such fundamental aspects as principles and objectives of the educative process for the several major age groups. Detailed consideration will be given to various methods and programs. 3 s.h.

Mr. Spence
262. Methods and Materials of Religious Education.-A consideration of the principal administrative problems of the church school, of the various concepts of the curriculum, and an examination of existing curricular, their nature, use and value. 3 s.h.

Mr. Spence
363. Worship and Drama.- Worship in its bearings upon the educational functions of the Christian religion. The use of drama in religious education with the creation of dramatic programs of worship and drama writing and production. 3 s.h.
-ir. Spence
365. History of Religious Education in Modern Times.-A critical study oi the historical movements in religious education since the Reformation with special consideration of the American development. 3 s.h. Mr. Spence
[Not offered in 19+6-47]
366. The Educational and Spiritual Values of Great Literature.-A study of Biblical and other great literature from the standpoint of their teaching values; analysis of material with reference to needs, interests, and capacities of various age groups. Correlation of Biblical and extra-Biblical material with a view to its adaptability for teaching and preaching purposes. 3 s.h.

Mr. Spence
368. Theories of Religious Education.-A critical investigation of current theories of Religious Education. 3 s.h. Mr. Spence
[Not offered in 1946-47]

## SOCIAL ETHICS

236. Social Ethics.-A study of the sociological fundamentals underlying social ethics, including the controversy between materialistic and idealistic social thinkers, the nature of personalities and of social organizations, the nature of social values, types of social interaction and their effects upon general social values, underlying principles and facts of social change, and the bearings of all these upon certain social problems. 3 s.h.

Mr. Hart
299. Marriage and Family Counseling.-A survey of practical problems in the light of social, psychological, and spiritual fundamentals, for persons preparing for professional work. 3 s.h.

Mr. Hart
421-422. Thesis Seminar.-A seminar in thesis guidance for students majoring in sociology. Hours to be arranged. Mr. Hart
*205. Social Pathology.-3 s.h.
*206. Criminology.-3 s.h.
*212. Child Welfare- 3 s.h.
*215. Rural Sociology.-3 s.h.
*216 Urban Sociology-3 s.h.
*217. Race and Culture. -3 s.h.

* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity. For description of the course see the catalogue of the Graduate School.


## Announcement

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## COURSES IN RELIGION

DUKE UNIVERSITY SUMMER SESSION<br>1946<br>DURHAM, NORTH CAROLINA

First Term: June 5 to June 26
Second Term: June 27 to August 8
Third Term: August 9 to August 29

## CALENDAR OF THE SUMMER SESSION

1946
June

June 5. Wednesday, 2:15 p.m.-3:40 P.M.-Instruction begins for first term.
June 26. Wednesday-First term ends.
June 27. Thursday, 9:00 A.m.-5:00 P.M.-Registration of students for second term.
June 28. Friday, 8:00 A.m.-Instruction begins for second term.
July 4. Thursday-Independence Day: a holiday.
August 8. Thursday-Second term ends.
August 8. Thursday, 2:00 p.m.-5:00 p.m.-Registration of students for third term.
August 9. Friday, 8:00 A.m.-Instruction begins for third term.
August 29. Thursday-Third term ends.

## ADMINISTRATIVE OFFICERS

ROBERT LEE FLOWERS, A.M., LL.D. President of Duke University HOLLAND HOLTON, A.B., J.D.
Director of the Summer Session and Chiairman of the University Committee on the Summer Session

ADVISORY COMMITTEE ON COURSES IN RELIGION BENNETT HARVIE BRANSCOMB, A.B., M.A., (Oxon.), Ph.D., Litt.D., Chairman
Dean of the Divinity School
Hilrie Shelton Smith, A.B., Ph.D., D.D., Litt.D.
Director of Graduate Studies in Religion
HIRAM E. MYERS, A.B., S.T.B., S.T.M.
Director of Undergraduate Studies in Religion

## FACULTY

CANNON, JAMES, III, A.B., A.MI., Th.B., Th.M., D.D. Ivey Professor of the History of Religion and Missions
CLARK, KENNETH WILLIS, A.B., B.D., Ph.D. Professor of New Testament
CUSHMAN, ROBERT E., A.B., B.D., Ph.D.
Associate Professor of Christian Doctrine
ORMOND, JESSE MARVIN, A.B., B.D., D.D.
Professor of Practical Theology
SMITH, H. SHELTON, A.B., Ph.D., D.D., Litt.D. Professor of American Religious Thought

SPENCE, HERSEY EVERETT, A.B., A.M., B.D., D.D., Litt.D. Professor of Religious Education
STINESPRING, WILLIAM FRANKLIN, B.A., M.A., Ph.D. Professor of Old Testament

## DUKE UNIVERSITY SUMMER SESSION

## COURSES IN RELIGION

Courses in religion and related fields will be offered in the Duke University Summer Session of 1946. These courses are subject to all the regulations of the Duke University Summer Session as published in the Summer Session Bulletin. The undergraduate credits secured will count on the Bachelor of Arts degree. Graduate credits will count on the Bachelor of Divinity, Master of Religious Education, Master of Arts and Doctor of Philosophy degrees. These credits may, of course, be transferred to other colleges, universities, and theological schools in the same way that such transfer of credits is usually made.

Candidates for degrees from Duke University should be formally admitted to the school which will confer the degree. Candidates for the B.D. and M.R.E. degrees must be admitted to the Divinity School; candidates for the A.M. and Ph.D. degrees must be admitted to the Graduate School of Arts and Sciences.

## FEES AND EXPENSES

Every student pays a registration fee of ten dollars for each three weeks, or twenty dollars for each term of six weeks. Tuition is four dollars for each semester hour. Ministers and theological students are exempt from tuition fees for as many as four terms of six weeks in the period of six years. After their fourth term they pay regular tuition charges.

## ROOM AND BOARD

Most of the rooms in the dormitories are double rooms. The rent is $\$ 17.50$ per occupant for six weeks in the men's dormitories and $\$ 18.50$ per occupant in the women's dormitories. Single rooms when available are at the rate of $\$ 22.50$ for the term of six weeks for men and $\$ 23.50$ for women. There is no dormitory for married men who wish their wives to come with them and no accommodations whatever for children on the campus. The Divinity School and Summer Session, however, are glad to assist students in locating accommodations off the campus. Occupants of the University rooms furnish their own bed linen, blankets, pillows, and towels.

Board will be provided in the University dining halls at about $\$ 50$ for six weeks.

## ADVANCED DEGREES

The degrees of Bachelor of Divinity and Master of Religious Education are offered in the Divinity School.

The degrees offered in the Graduate School of Arts and Sciences are Master of Arts and Doctor of Philosophy.

Graduate study in religion leading to the degrees of Master of Arts and Doctor of Philosophy may be pursued in three fields: (1) Biblical Studies; (2) Studies in Church History; and (3) Studies in Christian Theology and Ethics.

Candidates for advanced degrees must be graduates of colleges of recognized standing.

Upon request the Director of the Summer Session or the Dean of the Divinity School will furnish bulletins containing detailed description of the academic requirements for the degrees of Bachelor of Divinity, Master of Religious Education, Master of Arts and Doctor of Philosophy.

## CREDITS

Courses numbered from 100-199 are for college juniors and seniors. Courses numbered from 200-299 are for college seniors, students in the Divinity School, and graduate students; courses numbered from 300 up are for Divinity School and graduate students. The maximum credit for a term of six weeks is six semester hours; for three weeks, three semester hours.

## RELIGIOUS SERVICES

University religious services are held each Sunday morning at 11:00 o'clock, to which all students are invited. In the summer of 1945 the student choir, a voluntary organization, enrolled over two hundred students.

## COURSES OF INSTRUCTION*

(Note: In the description of courses the following abbreviations occur: $A$ means that the course comes the first eighty-five minutes daily, beginning at $8: 00 ; B$ means that the course comes at the eighty-five minute period beginning at $9: 40 ; C$ means that the course comes at the eighty-five minute period beginning at $11: 20$.)

## First Term (3 weeks) June 5-June 26

S223. Conceptions of Man in Western Thought.-An analysis and interpretation of important types of philosophical and theological theory concerning man with a view to critical evaluation and construction. Prerequisite: 3 s.h. in Christian Doctrine or 6 s.h. in Philosophy. B and C. 3 s.h.

Mr. Cushman
S255. The Church and Community.-A study of the function of the Church in different types of community life. A and C. 3 s.h. Mr. Ormond

## Second Term (6 weeks) June 27-Aug. 8

S1. The English Bible.-Survey of the contents of the historical and prophetic books of the Old Testament with particular reference to the literary, historical, and religious values. A. 3 s.h.

Mr. Ormond
S2. The English Bible.-Study of the Psalms, wisdom literature, and the literature of the New Testament with special attention given to the literary, historical, and religious values. B. 3 s.h.

Mr. Ormond
S51. The History of the Hebrew People.-A study of the Hebrew people that gives attention to, their political history, their religious and social institutions, their literary development, with special reference to their contributions to civilization. Not open to students who have had Religion 1. B. 3 s.h.

Mr. Spence
S52. New Testament Life and Literature.-A study of the literature of the New Testament, its historical background, and its religious values. Not open to students who have had Religion 2. C. 3 s.h.

Mr. Spence
S181. The Nature and Early Development of Religion.-Introduction to the early history of religion, the beliefs and practices of the more primitive peoples, and the religious life of the ancient world. For Juniors and Seniors. Not open for credit to students who take Religion 183. A. 3 s.h.

Mr. Cannon
S182. Living Religions of the World.-A survey of the religious systems of India, China, and Japan, followed by a study of Judaism, Mohammedanism, and Christianity, the object being to trace the historical development of each religion. For Juniors and Seniors. Not open for credit to students who take Religion 183. C. 3 s.h.

Mr. Cannon
S319. The Life and Letters of Paul.-A study of the most influential leader in the early formative days of Christianity. The aim is to examine his personal religious experience, the problems he encountered, the solutions he offered, and the form of belief and practice he advocated. B. 3 s.h.

Mr. Clark

[^54]
## The Divinity School

S321. Early Christian Apocalyptic Writings.-A study of the formulation of early Christian apocalyptic ideas, as set forth in the Pauline letters, the Gospels, the Revelation of John, the Shepherd of Hermas, the Sibylline, Oracles, and other apocalypses attributed to Peter, Paul and Thomas. A. 3 s.h.

Mr. Clark
S392. Christian Thought in America Today.-An analysis and appraisal of the main currents in American religious thought since 1900. A. 3 s.h. Mr. Smith

S396. Modern American Christology.-A critical study of the historical development of liberal conceptions of Jesus since the middle of the eighteenth century. C. 3 s.h.

Mr. Smith
Third Term (3 weeks) Aug. 9-Aug. 29
S303. Palestine: Land of the Bible.-A study of the geographical and cultural conditions and problems of Palestine. B and C. 3 s.h.

Mr. Stinespring

## RELATED COURSES

Sociology 206. Criminology.-A. 3 s.h.
Mr. Jensen
(Offered during term June 27-August 8.)
Sociology 212. Child Welfare.-B. 3 s.h.
Mr. Jensen
(Offered during term June 27-August 8.)
Sociology 218. Cultural Anthropology.-A and C. 3 s.h. (Offered during term August 9--August 29.)

Mr. Thompson
Sociology 236. Social Ethics.-A. 3 s.h.
Mr. Hart
(Offered during term June 27-August 8.)

Address application or request for information to the Dean of the Divinity School, Duke University, Durham, North Carolina, or the Director of Duke University Summer Session, Duke University, Durham, North Carolina.

## CANDIDATES FOR THE DEGREE OF BACHELOR OF DIVINITY

## JUNIOR CLASS

Arnold, Jack Hampton
A.B., University of Virginia, 1945.

Auman, James Albert
A.B., High Point College, $19+5$.

Austin, Don Charlton
A.B., Wheaton College, 1944.

Aycock, Johnnie Dolphus
A.B., High Point College, 1945.

Brown, Jarvis Padgham
A.B., Trinity College, 1943.

Buckingham, Harry Forry, Jr.
A.B., Western Maryland College, 1945.

Capers, Francis Ralph
B.S., Wofford College, 1939.

Clark, Ellie Nusome
A.B., Elon College, 1941.

Collins, Clyde Louis
A.B., High Point College, 1944.

Crawford, Leland
A.B., Syracuse University, 1944.

Flynn, Donald Luther
A.B., West Virginia Wesleyan.

Hirschi, Carlton Frederick
A.B., Allegheny College, 1945.

Hook, Ray Price
A.B., Wofford College, 1941.

Kirchgessner, Robert Frank
A.B., High Point College, 1943.

Knight, Calvin Stinson
A.B., Wake Forest College, 1945.

Lanier, Hoyle Glenn
A.B., High Point College, 1945.

McFarland, Wilbur Galloway
A.B., Trinity College, 1918.

Nease, Edgar Harrison, Jr.
A.B., Duke University, 1945.

Ransom, Eugene Arthur
A.B., University of Wisconsin, 1941.

Robinson, Milton Harvey
A.B., Southwestern University, 1940.

Scoggins, Eugene King
A.B., Wofford College, 1944.

Smart, Morgan Shelton
A.B., William and Mary College, 1945.

Snyder, Walstein Welch
A.B., Elon College, 1945.

Wells, William Miles, Jr.
A.B., Duke University, 1945.

Portsmouth, Va.
Seagrove, N. C.
Pleasant Garden, N. C.
Littleton, N. C.
Portland, Ore.
Towson, Md.
Inman, S. C.
Burlington, N. C.
Durham, N. C.
Oswego, N. Y.
Buckingham, Va.
Woodhaven, N. Y.
Lexington, S. C.
Jersey City, N. J.
Leaksville, N. C.
Lexington, N. C.
Louisburg, N. C.
Greensboro, N. C.
West Allis, Wis.
El Paso, Tex.
Olanta, S. C.
Ettrick, Va.
Burlington, N. C.
Wilson, N. C.

Winn, Boyd Cleveland
A.B., Lenoir-Rhyne College, 1945.

Young, Russell Lowell
A.B., Catawba College, 1929.

Durham, N. C.
Asheville, N. C.

## MIDDLE CLASS

Adams, Gilreath Gilderoy, Jr.
Charlotte, N. C.
A.B., Duke University, 1945.

Adamson, Malcolm Monroe A.B., Athens College, 1943.

Allen, Ray Maxwell
A.B., Southwestern College, 1944.

Andes, Mark Winston
A.B., Elon College, 1944.

Barrett, Troy James
A.B., Wofford College, 1944.

Blanton, William Webster
A.B., Davidson College, 1944.

Branton, Theodore Ray
A.B., Centenary College, 1945.

Burgin, William Grady
A.B., Wofford College, $19+2$.

Carter, John William
A.B., High Point College, 1945.

Coffin, Wayne Wesley
A.B., Southwestern University, 1944.

Combs, William Price
A.B., Duke University, 1944.

Cooley, Arthur Paul
A.B., Hendrix College, 1943.

Crowder, William Rankin
A.B., Guilford College, 1944.

Dail, Francis Roderick
B.S., East Tennessee State College, 1941.

Dunlap, Irwin Grant
A.B., Albion College, 1944.

England, Perry William
A.B., High Point College, 1946.

Farrell, Earl Thompson
A.B., Elon College, 1944.

Forshee, James Woodrow
A.B., Birmingham-Southern College, 1942.

Groscup, Stacy LaGrande
A.B., Morris Harvey College, 1945.

Harbin, Melton Edward
A.B., High Point College, 1945.

Hartz, John Leslie
B.S., Central Missouri State Teachers College, 1944.

Harwell, Robert William
A.B., University of North Carolina, 1942.

Haskew, John Bishop, Jr.
A.B., Athens College, 1944.

Howard, Robert Crawford
A.B., University of Alabama, 1944.

Hurley, John Bernard
A.B., Catawba College, 1944.

James, Howard Glenn
A.B., Atlantic Christian College, 1944.

Johnson, Joseph Stephens
A.B., High Point College, 1944.

Jones, Norwood Lee
A.B., High Point College, 1944.

Jordan, Linwood Ray
A.B., Wake Forest College, 1942.

Kinlaw, Grover Cleveland
A.B., Wake Forest College, 1940.

Lipe, Godfrey Frederick
A.B., Wake Forest College, 1943.

McDonald, Walter Neill
A.B., Duke University, 1944.

Madren, Weldon Thomas
A.B., Elon College, 1943.

Maides, John Thomas
A.B., High Point College, 1944.

Meredith, McLaurin Mayers
B.S., Southwestern University, 1945.

Miller, Clairmont Thaw, Jr.
A.B., Morris Harvey College, 1944.

Morton, Vernon Adams
A.B., High Point College, 1931.

Patterson, Howard Carlton
A.B., University of North Carolina, 1941.

Pruette, Rowland Shaw
A.B., Wake Forest College, 1943.

Reynolds, James William, Jr.
A.B., Randolph-Macon College, 1945.

Rumbley, George McClellan
A.B., Union College, 1944.

Schrader, Albert John
A.B., Mount Union College, 1944.

Seals, Daniel Hilton
A.B., University of North Carolina, 1945.

Short, Raymond Everett
A.B., Willamette University, 1944.

Smith, Edward Franklin
A.B., Duke University, 1945.

Spitzkeit, James Walton
A.B., Centenary College, 1944.

Thomas, Kenneth Maxwell
A.B., Austin College, 1944.

Toepel, Douglas Julius
A.B., Wayne University, 1944.

Villines, Floyd Galloway, Jr.
A.B., University of Arkansas, 1941.

Wallace, Aldred Pruden
A.B., Fairmont State Teachers College, 1942.

Way, Robert Bradford
A.B., University of South Carolina, 1945.

Asheboro, N. C.
Winterville, N. C.
Lake Junaluska, N. C.
Clayton, N. C.
Wilmington, N. C.
Lumberton, N. C.
Asheville, N. C.
Durham, N. C.
Burlington, N. C.
Maysville, N. C.
Dallas, Tex.
Sissonville, W. Va.
Jamestown, N. C.
Burlington, N. C.
Wadesboro, N. C.
Hampton, Va.
Brownsville, Ind.
Pittsburgh, Pa.
Raeford, N. C.
Emmett, Ind.
Fayetteville, N. C.
Gulfport, Miss.
Dallas, Tex.
Detroit, Mich.
Elm Springs, Ark.
Hopewell, Va.
Ridgeland, S. C.

Wethington, Lewis Elbert
A.B., Wake Forest College, 1944.

White, Charles Denny
A.B., High Point College, 1939.

Winberry, Herman Stanford
A.B., Duke University, 1944.

Durham, N. C.
Durham, N. C.
Mount Olive, N. C.

## SENIOR CLASS

Ausley, Paul Kenneth
A.B., Florida Southern College, 1942.

Bailey, Ulysses Grant
A.B., Emory and Henry College, 1943.

Barnes, Edwin Edward
A.B., Southwest Missouri State Teachers College,

Beal, Paul R.
A.B., Morris Harvey College, 1942.

Bennett, Luther Alcorn
A.B., Millsaps College, 1943.

Bevan, John Morgan
A.B., Franklin and Marshall College, 1944.

Bowers, Daniel P. Sayler
A.B., Franklin and Marshall College, 1943.

Brinson, John Clinton
A.B., Kentucky Wesleyan, 1942.

Bull, Robert Jehu
A.B., Randolph-Macon College, 1943.

Cagle, John Frank
A.B., High Point College, 1940.

Chrisman, Myron Wayne
A.B., Phillips University, 1946.

Cline, John Maxwell
A.B., Duke University, 1943.

Clouse, Walter Jacob
A.B., Adrian College, 1944.

Cochran, James Edgar
A.B., Wofford College, 1943.

Cofer, Gilbert Francis
A.B., Emory and Henry College, 1943.

Curtis, Myers Blondon
A.B., Southwestern University, 1944.

Dalton, George Willie
A.B., High Point College, 1943.

Dennis, Arthur Williams
A.B., West Virginia Wesleyan College, 1943.

Dennis, Paul Martin
A.B., Wake Forest College, 1943.

Dirks, Dwight Warren
A.B., Dakota Wesleyan University, 1942.

DuBose, Robert Newsom
A.B., Wofford College, 1941.

Durham, Donald William
A.B., Union College, 1943.

Edwards, John Paul
A.B., Duke University, 1944.

Franklinville, N. C.

McComas, W. Va.
Licking, Mo. 1943.

Glenville, W. Va.
Fulton, Miss.

St. Plains, Pa.
Waynesboro, Pa.
Owensboro, Ky.
Norfolk, Va.
Durham, N. C.
Lawton, Okla.
Durham, N. C.
Aspinwall, Pa.
Kannapolis, N. C.
Alderson, W. Va.
Rosebud, Tex.
Lewisville, N. C.
Nassawadox, Va.
Mt. Gilead, N. C.

Tyndall, S. D.

Lake View, S. C.
Reidsville, N. C.

Clinton, N. C.

Ehlhardt, George Brinkmann
A. B., John B. Stetson University, 1938.

Elrod, Elton Welborn A.B., Southwestern University, 1943.

Ford, Jesse Emerson, Jr. A.B., W offord College, 1941.

Fowler, Francis Wiley B.S., Davidson College, 1944.

Gitlin, Emmanuel Momseyevich A.B., Texas Christian University, 1944.

Glass, Ernest Wilson A.B., Wake Forest College, 1944.

Hamlin, Griffith Askew
A.B., Atlantic Christian College, 1939.

Hamm, John Madison
A.B., High Point College, 1942.

Harrell, Leighton Ernest, Jr.
A.B., University of Maryland, 1943.

Hughes, Miles Preston
A.B., University of Alabama, 1943.

Huston, Hollis
A.B., Willamette University, 1944.

Jackson, Lester Polk, Jr.
A.B., Texas College of Mines, 1942.

Johnson, Carl Anderson A.B., Wofford College, 1943.

Johnson, Jesse Louis, Jr. A.B., High Point College, 1943.

Jordan, John Sharpe
A.B., Duke University, 1940.

McCleskey, Walter Scott A.B., Emory University, 1942.

McCoy, Charles Sherwood A. B., University of North Carolina, 1943.

Miller, Gilbert Shelly A.B., Lenoir-Rhyne College, 1940.

Moore, Jack Warren
A.B., Olivet College, 1934.

Mims, Ulus Eugene A.B., University of Alabama, 1944.

Morgan, Colby Shannon A.B., Elon College, 1944.

Nicholson, Ralph Herman A.B., Lenoir-Rhyne College, 1937.

Nicks, Robert Lee A.B., Duke University, 1937.

Oglesby, Glynn Aubrey A.B., Wofford College, 1943.

Oliphint, Benjamin Ray A.B., Southern Methodist University, 1944.

Peery, John Franklin A.B., Southern Methodist University, 1943.

Perkins, Theodore Edison B.S., Western Carolina Teachers College, 1939.

St. Louis, Mo.
Palestine, Tex.
Marion, S. C.
Charlotte, N. C.
Chicago, Ill.
Sanford, N. C.
Wilson, N. C.
Tobaccoville, N. C.
Hyattsville, Md.
Gadsden, Ala.
Salem, Ore.
El Paso, Tex.
Elon College, N. C.
Siler City, N. C.
West Jefferson, N. C.
Waycross, Ga.
Laurinburg, N. C.
Greensboro, N. C.
Bennettsville, S. C.
Newville, Ala.
Eagle Springs, N. C.
Statesville, N. C.
Cedar Grove, N. C.
Selma, Ala.
Shreveport, La.
Fort Worth, Tex.
Goldsboro, N. C.

Petteway, Warren Bernard
A.B., Wofford College, 1941.

Pfisterer, Fred Russell
A.B., Kentucky Wesleyan College, 1943.

Polk, Charles
A.B., Wofford College, $19+2$.

Purcell, Eugene George, Jr.
A.B., Duke University, 1942.

Regan, James Robert
A.B., Duke University, 1928.

Ridenhour, Henry Isley
A.B., High Point College, 1942.

Risinger, Melvin Smith
A.B., West Virginia Wesleyan College, 1943.

Ritchie, Adam Greig
A.B., Guilford College, $19+4$.

Rutledge, Thomas Edgar, Jr.
A.B., Trinity University, 1943.

Sales, Reames Hawthorne
A.B., Hendrix College, 1942.

Sampselle, William DeVries
A.B., University of Maryland, 1943.

Shives, Marshall Bell
A.B., Lenoir-Rhyne College, $19+5$.

Shore, Philip Linus, Jr.
A.B., Duke University, 1935.

Smiley, Donald Gilbert
A.B., Fresno State College, 1943.

Stanfield, Claude Edwin
A.B., Florida Southern College, $19+3$.

Swink, Ray Franklin
A.B., High Point College, 1944.

Townsend, Harold Lee
A.B., Wake Forest College, $19+3$.

Tucker, Roger Wilkins
A. B., High Point College, 1943.

Vercen, LaFon Carpenter
B.S., Clemson College, 1941.

Wells, Robert Newton
A.B., Wofford College, 1943.

Young, Alvin Clyde
A.B., Concord College, 1943.

Kinston, N. С.
Louisville, Ky.
Varnville, S. C.
Erwin, N. C.
Erwin, N. C.
Seagrove, N. C.
Moundsville, W. Va.
Chapel Hill, N. C.
Childress, Tex.
Forrest City, Ark.
Mt. Rainer, Md.
Lincolnton, N. C.
Greensboro, N. C.
Fresno, Calif.
Sarasota, Fla.
Lexington, N. C.
Fayetteville, N. C.
Madison, N. C.
Latta, S. C.
Manning, S. C.
Buffalo, W. Va.

## CANDIDATE FOR THE DEGREE OF MASTER OF RELIGIOUS EDUCATION

Gitlin, Ethel Ruppenthal
A.B., Duke University, 1945.

Durham, N. C.

SPECIAL STUDENTS

Beam, Billy Beth
A.B., Greensboro College, 1941.

Bouknight, William R., Jr.
A.B., Newberry College, 1929.

Cherryville, N. C.
Andrews, S. C.

Brown, Edith Upchurch Durham, N. C.
A.B., Duke University, 1942.

Grant, Willard William
Tampa, Fla.
A.B., Ohio Wesleyan University, 1923;
S.T.M., Boston University School of Theology, 1927.

Huston, Annie Laura Cotton
A.B., Duke University, 1945.

Taylor, Nixon Alfred Durham, N. C.
A.B., Atlantic Christian College, 1931.

Vick, Thomas Marvin
A.B., Southern Methodist University, 1936.

## CANDIDATES FOR THE DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY IN RELIGION

(Registered in Graduate School of Arts and Sciences)
1945-46
Anderson, Wilber Kenneth
Yanceyville, N. C.
A.B., Asbury College, 1931;
B.D., Duke University, 1935.

Brownlee, William Hugh
Sylvia, Kan.
A.B., Sterling College, 1939;

Th.B., Pittsburgh-Xenia Theological Seminary, 1942.
Carroll, Howard
Easton, Md.
A.B., University of Richmond, 1938;
B.D., Duke University, 1943 .

Cline, Kitty Ida Durham, N. C.
A.B., Greensboro College, 1939.

Cole, George Davis, Jr.
A.B., Duke University, 1940;
B.D., Yale University, $19+3$.

DuBose, Samuel Wilds
Hillsboro, N. C.
A.B., Davidson College, 1931;
B.D., Union Theological Seminary, Richmond, 1935;
A.M., Duke University, 1943.

Eichelberger, Pearl Virginia Greensboro, N. C.
A.B., High Point College, 1937;
A.M., Mercer University, 1938.

Failing, George Edgar Central, S. C.
A.B., Houghton College, 1940.

Francis, Charles Arthur Bethel, N. C.
A.B., Wake Forest College, 1938;
B.D., Crozer Theological Seminary, 1942.

Harrell, Margaret Elizabeth Cordele, Ga.
, A.B., Wesleyan College, 1936.
Jones, William Purcell Greensboro, N. C.
B.A., Hampden-Sydney College, 1938.

Lewis, Frank Bell
Maxwelton, W. Va.
A.B., 1932, A.M., 1933, Washington \& Lee University;
B.D., 1936, Th.M., 1937, Union Theological Seminary, Richmond.

McClain, Howard G.
Sherman, Tex.
A.B., Vanderbilt University, 1939;
B.D., Southern Baptist Theological Seminary, 1943.

McLain, Robert Wayne
Statesville, N. C.
A.B., Berea College, 1941;
S.T.B., Boston University School of Theology, 1944.

Moore, Benjamin Franklin
A.B., University of Georgia, 1937;
B.D., Columbia Theological Seminary, 1942.

Munger, Bernard Vernon
A.B., Washburn Municipal University, 1938;
B.D., Chicago Theological Seminary, 1942.

Newberry, Eugene Wilson
A.B., Denison University, 1937;
B.D., Oberlin Graduate School' of Theology, 1945.

Nichols, Hugh Lester
A.B., Duke University, 1916;

Th.M., Southern Baptist Theological Seminary, 1923.
Rhodes, Daniel Durham Rocky Point, N. C.
A.B., Davidson College, 1938;
B.D., Louisville Presbyterian Theological Seminary, 1944.

Rhodes, Mrs. Daniel Durham
A.B., Coker College, 1943.

Sales, Reames Hawthorne
A.B., Hendrix College, 1942.

Schafer, Thomas Anton
A.B., Maryville College, 1940;
B.D., Presbyterian Theological Seminary, 1943.

Starr, Homer Pilgrim
A.B., University of the South, 1934;
B.D., Virginia Theological Seminary, 1938.

Touhsaent, Mrs. Betty Jane Sell
A.B., Cedar Crest College, 1941.

Vick, Thomas Marvin
A.B., Southern Methodist University, 1936;
B.D., Duke University, 1939.

Wood, Harry DuPrey, Jr. Angier, N. C.
A.B., Wake Forest College, 1935;

Th.M., Southern Baptist Theological Seminary, 1940.
Young, Franklin Woodrow
A.B., Dartmouth College, 1937;
B.D., Crozer Theological Seminary, 1942.

Durham, N. C.

Rocky Point, N. C.
Athens, Ga.

Graham, N. C.

New Boston, Ohio

Forrest City, Ark.
E. Liverpool, Ohio

Burlington, N. C.

Allentown, Pa .
Bahama, N. C.

Columbus, Ohio

## DEGREES CONFERRED IN 1945

## BACHELOR OF DIVINITY

Belcher, Arnold Dwane
Boone, Sidney Grant
Brickhouse, Ernest Fielding
Byrum, Roy Delbert
Cooke, Jack Homer
Everett, Caleb Roy, Jr.
Fridley, Robert Daniel
Fuqua, Robert Meek
Greene, Franklin William
Harbuck, George Welcome
Ingram, Osmond Kelly
Jolly, Joseph Ralph
Jones, Haniel

Jones, Murray Hughlon
Lowder, John Albert
McCarver, Clyde Gay
McGinnis, James William
Needham, George Harlan
Perry, Charles Streamberg
Preston, Norman George, Jr.
Ray, Milton Undrel
Sturtevant, William Lyons
Turner, Archer Rudder Waugh, Ray Paschal
Wellons, Albert Wilson
Williams, Harley Morrison

MASTER OF ARTS IN RELIGION
King, Sarah Edna

## DOCTOR OF PHILOSOPHY IN RELIGION

Rudisill, Dorus Paul
Woodbridge, Charles Jahleel

## ENROLLMENT STATISTICS

Regular academic session, 194j-46:Candidates for the B.D. degree
Juniors ..... 26
Middlers ..... 54
Seniors ..... 71
Candidates for the M.R.E. degree ..... 1
Special students ..... 7
Total ..... 159
Candidates for the M.A. and Ph.D. degrees in Religion ..... 18
Summer Session, 1945:
Candidates for the B.D. degree ..... 41
Candidates for the M.A. and Ph.D. degrees in Religion ..... 9
*DIṠTRIBUTION BY STATES
Alabama .......................... 7 New York ........................... 2
Arkansas ......................... 2 North Carolina ..... 81
Florida 2 Oklahoma ..... 1
Georgia 1 Oregon ..... 2
Idaho
1 South Carolina ..... 4
Indiana
2 South Dakota ..... 11
Kentucky
1 Tennessee ..... 1
Louisiana
3 Texas ..... 11
Maryland
3 Virginia ..... 9
Mississippi ..... 6
Missouri 3 Wisconsin ..... 1
New Jersey Number of States, 25.
*DISTRIBUTION BY COLLEGES AND UNIVERSITIES
Athens College 2 Franklin and Marshall College ..... 2
Adrain College
1 High Point College ..... 20
Allegheny College 1 Hendrix College ..... 2
Atlantic Christian College 2 Kentucky Wesleyan College ..... 2
Austin College
1 Lenoir-Rhyne College ..... 1
Birmingham-Southern College
2 Morris Harvey College ..... 4
Centenary College
Catawba College
1 Mount Union College ..... 1
Clemson College
1 Millsaps College ..... 1
Concord College
1 Newberry College ..... 1
Dakota Wesleyan University
17 Olivet College ..... 1
Duke University
2 Ohio Wesleyan University ..... 1
Elon College 6 Pfeiffer Junior College ..... 1
Emory and Henry College 2 Phillips University ..... 1
East Tennessee State College 1 Randolph-Macon College ..... 2
Emory University 1 Southwestern College ..... 1
Florida Southern College 2 Southwestern University ..... 5
Fresno State College 1 Syracuse University ..... 1
Fairmont State Teachers College 1 Stetson University ..... 1

[^55]

# BULLETIN OF DUKE UNIVERSITY 

## Catalogue Number



1945-1946
ANNOUNCEMENTS FOR 1946-1947

PUBLISHED BY THE UNIVERSITY DURHAM, NORTH CAROLINA

## ANNUAL BULLETINS

For General Bulletin of Duke University, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of Undergraduate Instruction, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The College of Engineering, apply to The Secretary, Duke University, Durham, N. C.

For Bulletin of The Graduate School of Arts and Sciences, apply to The Dean of the Graduate School, Duke University, Durham, N. C.

For Bulletin of The School of Law, apply to The Dean of the School of Law, Duke University, Durham, N. C.

For Bulletin of The School of Medicine, apply to The Dean of the School of Medicine, Duke University, Durham, N. C.

For Bulletin of The School of Nursing, apply to The Dean of the School of Nursing, Duke University, Durham, N. C.

For Bulletin of The Divinity School, apply to The Dean of the Divinity School, Duke University, Durham, N. C.

For Bulletin of The School of Forestry, apply to The Dean of the School of Forestry, Duke University, Durham, N. C.

For Bulletin of The Summer Session, apply to The Director of the Summer Session, Duke University, Durham, N. C.

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# BULLETIN OF <br> <br> DUkE University 

 <br> <br> DUkE University}


## CATALOGUE NUMBER

1945-1946<br>ANNOUNCEMENTS FOR 1946-1947

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## CALENDARS OF THE COLLEGES

1946
June 27 Thursday, 9:00 A.m.-Registration of students for Summer Session, first term.
June 28 Friday, 8:00 A.m.-Instruction begins for Summer Session, first term.
July 4 Thursday-Independence Day: a holiday.
Aug. 8 Thursday-First term of Summer Session ends. Registration for second term.
Aug. 9 Friday, 8:00 A.m.-Extended term of Summer Session begins.
Aug. 29 Thursday-Extended term of Summer Session ends.
Sept. 12 Thursday, 9:00 A.m.-Dormitories open to Freshmen.
Sept. 12 Thursday, 7:30 p.m.-Assembly for all entering Freshmen; Freshman Orientation Program begins, Trinity College and College of Engineering.
Sept. 12 Thursday, 8:00 P.m.-Assembly for all entering Freshmen; Freshman Orientation Program begins, Woman's College.
Sept. 17 Tuesday-Registration and matriculation of new students with advanced standing, Woman's College.
Sept. 18 Wednesday, 11:00 A.m.-Formal Opening of the College.
Sept. 19 Thursday-Instruction begins.
Sept. 19 Thursday-Assembly of all students, Woman's College.
Nov. 28 Thursday-Thanksgiving Day: a holiday.
Dec. 11 Wednesday-Duke University Day.
Dec. 20 Friday, 1:00 p.m.-Christmas recess begins.

## 1947

Jan. 3 Friday, 8:00 A.m.-Instruction is resumed.
Jan. 18 Saturday-Mid-year examinations begin.
Jan. 28 Tuesday-Mid-year examinations end.
Jan. 29 Wednesday-Last day for matriculation for second semester.
Jan. 30 Thursday-Second semester begins.
March 22 Saturday, 1:00 p.M.-Spring vacation begins.
March 31 Monday, 8:00 A.m.-Instruction is resumed.
April 18 Friday-Last day for submitting orations for Wiley Gray Contest.
April 30 Wednesday-Last day for selection of courses for ensuing year.
May 9 Friday-Earliest date for beginning of Honors examination.
May 19 Monday-Final examinations for second semester begin.
May 29 Thursday-Final examinations end.
May 31 Saturday-Commencement opens; Senior Class Day; meeting of the Board of Trustees.
June 1 Sunday-Commencement Sermon.
June 2 Monday-Commencement Address; Graduating Exercises.
The above is the basic University Calendar, applying more particularly to the Undergraduate Colleges. Variations as affecting the various Schools are included in the catalogue bulletins of such Schools.

## 1946

| JANUARY |  |  |  |  |  | APRIL |  |  |  |  |  |  | JULY |  |  |  |  |  |  | OCTOBER |  |  |  |  |  |  |
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| FEBRUARY |  |  |  |  |  | MAY |  |  |  |  |  |  | AUGUST |  |  |  |  |  |  | NOVEMBER |  |  |  |  |  |  |
| $s$ | M | T w | T | F | $s$ | s | M | T | w | T | F | S | s | M | T | w | T | F | $s$ |  | M | T | w | T | F | s |
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| MARCH |  |  |  |  |  | JUNE |  |  |  |  |  |  | SEPTEMBER |  |  |  |  |  |  | DECEMBER |  |  |  |  |  |  |
| s | M | T w | T | $F$ | $s$ | s | M | T | W | T | F | s | s | 9 | T | w | T | F | $s$ | s | M | T | w | T | F | $s$ |
| $\begin{array}{rrrrrrr} 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 10 & 11 & 12 & 13 & 14 & 15 & 16 \\ 17 & 18 & 19 & 20 & 21 & 22 & 23 \\ 24 & 25 & 26 & 27 & 28 & 29 & 30 \end{array}$ |  |  |  |  |  | $\begin{array}{rrrrrrr} 2 & 3 & 4 & 5 & 6 & 7 & 8 \\ 9 & 10 & 11 & 12 & 13 & 14 & 15 \\ 16 & 17 & 18 & 19 & 20 & 21 & 22 \\ 23 & 24 & 25 & 26 & 27 & 28 & 29 \end{array}$ |  |  |  |  |  |  | $\begin{array}{rrrrrrr} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 8 & 9 & 10 & 11 & 12 & 13 & 14 \\ 15 & 16 & 17 & 18 & 19 & 20 & 21 \\ 22 & 23 & 24 & 25 & 26 & 27 & 28 \\ 29 & 30 & & & & \end{array}$ |  |  |  |  |  |  | $\begin{array}{rrrrrrr} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 8 & 9 & 10 & 11 & 12 & 13 & 14 \\ 15 & 16 & 17 & 18 & 19 & 20 & 21 \\ 22 & 23 & 24 & 25 & 26 & 27 & 28 \\ 29 & 30 & 31 & & & & \end{array}$ |  |  |  |  |  |  |
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## 1947

| JANUARY |  |  |  |  |  |  | APRIL |  |  |  |  |  | JULY |  |  |  |  |  | OCTOBER |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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## DUKE UNIVERSITY'S WARTIME PROGRAM

Before the United States entered the present world conflict, the Board of Trustees of the University in annual session adopted a resolution placing its facilities at the use of the government as needed in connection with the defense program. A committee was named, headed by the late Daniel C. Roper, former Secretary of Commerce in President Roosevelt's cabinet and a member of the Board, to convey this offer to the President and other officials of the government.

A little later, by using the Summer Session, the Faculty put into effect an accelerated program of studies making possible the graduation of students in three years. A compulsory three-year twelve-months program for students in the School of Medicine was made effective; graduation from the School of Law in two years and two summer sessions was made possible; spring holidays in all departments of the University were abolished, and examination and Commencement periods were shortened.

The Naval R.O.T.C., training students for commissions in the United States Navy, was opened at the beginning of the 1941-42 academic year, and later enlarged. In August, 1942, the Army Finance School, to train officers for the finance division of the Army, was located at Duke. In July, 1943, the Army Fiscal School, to operate as a part of the Army Finance School, was inaugurated. The Finance School, during the time it was in operation on the Duke Campus, from August, 1942, through July, 1944, trained more than 5,000 officers.

The Navy College Training Program was inaugurated at Duke on July 1, 1943. This embraced, in addition to the N.R.O.T.C., the following: V-12 Basic Program, V-12 Engineers Program, V-12 Pre-Medical Program, V-12 Special Training for Medical Students, H(V)P Medical Training Program. The V-12 Training Program for Marine Corps and the V-12 Training Program for Coast Guard were discontinued in 1944.

The Army Training Program included the following: Army Specialized Training Program in Medicine, and Clinical Laboratory Course for Army Medical Doctors.

For several years the Civil Pilot Training Program, including both elementary and secondary courses, trained Naval Air Corps cadets; special defense courses for undergraduates in technical drawing, mathematics of gunfire, electronics, cartography and other courses have been given. Short intensive ESMWT courses have been offered in co-operation with the United States Commissioner of Education; research in defense problems has been carried on at the University voluntarily and by contract with federal agencies; more than two hundred members of the faculty and administrative staff have been called to Washington and other points for essential work in connection with the war effort; the Woman's College has carried on a definite program of war activities.

## HISTORY

Duke University owes its existence to a charitable trust set up by James B. Duke by an Indenture dated December 11, 1924, and known as the Duke Endowment; to gifts made by him to the University in the succeeding year; and to bequests that came through his will at his death, October 10, 1925. It is built around Trinity College which was brought to Durham and maintained there largely through the generosity of the Duke family.

Trinity College in its origins goes back to 1838. In that year the citizens of a rural community in the northwest section of Randolph County, North Carolina, established a school with Rev. Brantley York as principal. In 1839 this school was enlarged and named Union Institute. In 1841 it was incorporated by the following enactment of the Legislature of North Carolina:

## An Act to Incorporate Union Institute Acadeny:*

Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That Nathan Hunt, Joseph Mendenhall, Joseph Johnson, Lewis Leach, Jabez Leach, Martin W. Leach, and Ahi Robbins, and their successors, are hereby constituted a body corporate and politic to be known and distinguished by the name and style of the Trustees of the Union Institute Academy, and by that name shall have succession, and shall be able and capable in law to have, receive and possess lands and tenements, goods and chattels, acquired by gift or otherwise, and use and apply the same according to the will of the donor, or dispose of the same when not forbidden by the terms of the gift. They may sue and be sued, plead and be impleaded in any Court of Justice, and shall have power to fill vacancies in their body, which may occur by death, resignation, or otherwise, establish such laws and regulations for the government of said Institution as they may deem necessary, not inconsistent with the laws of this State, and do and perform all such acts and things as are incident to, and usually exercised for, bodies politic, for the accomplishments of the object contemplated.

Ratified the 12th day of January, 1841.
In the year 1842 Braxton Craven became principal of the school. The growth and development of the school caused the Trustees to plan to put it in direct relation to the educational needs of the public schools of the State. Application was made to the Legislature of North Carolina for a new charter, and on January 28, 1851, Union Institute Academy was incorporated as Normal College by the following enactment:

An Act to Incorporate Union Institute, in Randolph County, a Normal College : $\dagger$
Section 1. Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That the present Trustees of Union Institute, to-wit: M. W. Leach, Ahi Robbins, Joseph Johnson, James Leach, and C. M. Hines; together with Rev. B. Craven, of said Institute; Hon. A. H. Sheppard, of Salem; John A. Gilmer, Esq., of Greensboro; Col. Samuel Hargrave, of Lexington; J. L. Blackmer, Esq., of Salisbury; Rev. S. A. Andrews, of Grcensboro; Dr. S. G. Coffin, of Jamestown; H. B. Elliott, Esq., of Randolph; J. W. Thomas, Esq., of Davidson; John B. Troy, of Randolph; J. P. H. Russ, of Randolph; Eli Russell, of Montgomery, and Gen. J. M. Leach, of Lexington; and their successors be, and they are hereby declared, a body politic and corporate, to be known and distinguished by the name and style of the Normal College, and by that name shall have a perpetual succession, and a common seal, and be able and capable in law, of holding lands, tenements and chattels, sufficient for the uses and purposes of said College, and of suing and being sued, and of pleading and being impleaded.

SEc. 2. Be it further enacted, That said Trustees shall have the power to fix the time of holding the annual and other meetings, and to prescribe the manner in which vacancies in their body may be filled, five Trustees being a quorum to do business.

Sec. 3. Be it further enacted, That the said College shall be under the supervision, management and government of a President and such other persons as said Trustees may appoint; the said President, with the advice of the other persons so appointed, shall from

* Laws of North Carolina, 1840-1843.
$\dagger$ Laws of 1850-1851, chapter 20, page 56 .
time to time make all needful rules and regulations for the internal government of said College, and fix the number and compensation of teachers to be employed therein, to prescribe the preliminary examinations and the terms and conditions on which pupils shall be received and instructed, and the number of pupils to be received from the respective counties.

Sec. 4. Be it further enacted, That said Trustees shall have power to make such rules, regulations and bylaws, not inconsistent with the Constitution of the United States and of this State as may be necessary for the good government of said College, and the management of the property and funds of the same.

SEC. 5. Be it further enacted, That when any pupil shall have sustained a satisfactory examination on the studies, or course of studies, prescribed by the Faculty and Trustees of said College, such person shall be deemed qualified to teach common schools and may receive a certificate, signed by the President and at least seven Trustees, which certificate shall be sufficient evidence of ability to teach in any of the common schools in this State, without any reẻxamination of the county conunittees; and where county certificates are now required before paying out the public funds, the certificate of the Normal College shall answer in lieu thereof.

Sec. 6. Be it further enacted, That the whole College course shall be divided into four classes or degrees, styled first, second, third and fourth, and students shall be ranked accordingly.

SEc. 7. Be it further enacted, That all pupils entering said College shall first sign a declaration, in a book to be kept by the President for that purpose as follows: "We, the subscribers, hereby declare that it is our intention to devote ourselves to the business of teaching common schools in the State of North Carolina, and that our sole object in resorting to this Normal College is the better to prepare ourselves for that important duty," which declaration it shall be the duty of the President to explain to the pupils before they sign the same.

Ratified 28th January, 1851.
On November 21, 1852, the Legislature ratified amendments to the charter of 1851 including changes and additions as follows :

An Act to Amend an Act,, Entitled "An Act to Incorporate Union Institute, in Randolph County, Normal Colloge" :*
Section 1. Be it cnacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That J. C. Dobbin, John A. Gilmer, W. H. Washington, A. H. Sheppard, H. B. Elliott, J. M. Leach, Joseph Johnson, S. G. Coffin, A. S. Andrews, Joseph B. Cherry, N. W. Woodfin, B. Craven, James Leach, Calvin Graves, Ahi Robbins, John B. Troy, Robert Strange, John W. Thomas, Samuel Hargrave, J. P. H. Russ, W. M. Leach, W. L. Steele, R. M.' Saunders, W. B. Lane, G. W. Caldwell, C. H. Wiley, Jabez Leach, John A. Lillington, J. T. Morehead, Thales McDonald, R. C. Puryear, S. P. Hill, Alexander Gray, James M. Garrett, and Edward Ogburn and their successors be, and they are hereby declared, a body politic and corporate to be known and distinguished by the name and style of "The Trustees of Normal College," and by that name and style shall have a perpetual succession and a common seal, and be able and capable in law of holding lands, tenements and chattels for the uses and purposes of said College; and of suing and being sued, and of pleading and being impleaded.

SEC. 2. Be it further enacted, That the Governor of the State shall be ex-officio President of the Board of Trustees, and that the common school superintendent, should such an officer exist, shall be ex-officio Secretary of the Board, and that all vacancies in the Board shall be filled by a majority of the Trustees of said College.

Sec. 3. Be it further enacted, That the Trustees shall have power of appointing an Executive Committee, to consist of seven members which committee shall control the internal regulations of said College, and fix all salaries and emoluments, and of doing all other things necessary for an institution of learning not inconsistent with the laws of this State and of the United States.

Sec. 4. . . . They shall have also the power to grant such degrees and marks of honor as are given by Colleges and Universities generally.

SEC. 5. Be it further enacted, That the Secretary of the Board of Trustees shall, within ten days after the meeting of each [Legislature] make a full report of the condition and operations of said Normal College, and the general character of Normal Instruction; also, the condition and progress of Normal schools generally, together with all other information deemed important in the education of teachers, giving also the names and residences of all who have been authorized to teach.

Sec. 6. Be it further enacted, That the President and Directors of the literary fund are hereby directed to loan to the Trustees of Normal College, the sum of ten thousand dollars out of any moneys not otherwise appropriated, at six per cent interest, to be paid semiannually, upon said Trustees giving bond and good security for the same.

Under the amended charter authorizing the institution to confer degrees, two students were graduated on July 28, 1853, with the degree of Bachelor of Arts.

In the year 1853-1854 a larger building was erected by means of money lent by the State of North Carolina under the authority granted in the

* Laws of 1852-1853, chapter 88, page 161.
amended charter. In November, 1856, the Trustees of Normal College authorized President Craven to propose to the North Carolina Conference of the Methodist Episcopal Church, South, that the institution be placed under the ownership and control of that body. The Conference passed the following resolution:

1. That the Conference authorize and request the Board of Trustees of Normal College to raise by donations twenty thousand dollars.
2. That all lands and property belonging to the College be conveyed to the Board of Trustees in trust for the North Carolina Conference.
3. That the Conference fill all vacancies in the Board.
4. That the Conference appoint a visiting committee, which committee shall have equal power with the Board as to the internal regulations and operations of the College.

Within the following two years the Trustees arranged to meet all the conditions stipulated. The North Carolina Conference of the Methodist Episcopal Church, South, in consequence, became invested with the complete ownership and control of the College.

On February 16, 1859, the charter was amended and the name of the institution changed to Trinity College by the following enactment of the Legislature of North Carolina :

## An Act to Amend the Charter of Normal College :*

Section 1. Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That the corporation established by an act passed in 1852, and known by the style and title of the "Trustees of Normal College," be and the same is hereby changed to Trinity College; and said corporation shall henceforth, by the name and style of Trinity College, hold and use all the authority, privileges, possessions and liabilities it had under the former title and name.

Sec. 2. Be it further enacted, That the estate, real and personal, received and controlled by the Trustees of Trinity College, shall be for the uses and purposes of a literary institution for the North Carolina Conference of the Methodist Episcopal Church, South.

Sec. 3. Be it further enacted, That all vacancies in the Board of Trustees shall be filled by said North Carolina Conference: Provided, however, 't hat no person shall be elected a Trustee till he has first been recommended by a majority of the Trustees present at a regular meeting; and the Trustees shall have power to remove any member of their body who may remove beyond the boundaries of the State, or who may refuse or neglect to discharge the duties of a Trustee.

Sec. 4. Be it further enacted, That the Faculty and Trustees shall have the power of conferring such degrees and marks of honor as are conferred by colleges and universities generally; and that five Trustees shall be a quorum to transact business.

SEC. 5. Be it further enacted, That no person shall keep, maintain, or have at Trinity College, or within two miles thereof, any tippling-house establishment, or place for the sale of wine, cordials, spirituous or malt liquors; nor shall any person in the State, without a written permission from the Faculty, sell, or offer to sell, give or deliver to any student of Trinity College, or to any other person, any wine, cordials, spirituous or malt liquors for the purpose of being used or with a knowledge that the same will be used at said College, or within two miles thereof, by any student.

Sec. 6. Be it further enacted, That no person shall set up, keep or maintain at Trinity College, (or) within two miles thereof, any public billiard table, or other table, of any kind at which games of chance or skill, by whatever name called, may be played; and that no person, without written permission from the Faculty, shall within the same limits exhibit any theatrical, sleight-of-hand, natural or artificial curiosities, or any concert, serenade, or performance in music, singing or dancing.

SEC. 7. Be it further enacted, That sections second, fourth and fifth of the charter passed in 1852, are hereby repealed, and that all acts and laws coming within the meaning and purview of this present act are hereby repealed.

During the Civil War the College shared the common fate of Southern colleges. President Craven resigned in 1863, and Professor William T. Gannaway was elected his successor. In October, 1865, Dr. Craven was re-elected to the presidency; however, the work of the College, which had been suspended in April of that year, was not resumed till January, 1866. Dr. Craven remained president of the College till his death, November 7, 1881. Professor William Howell Pegram was then elected chairman of the Faculty. He served till the close of the academic year, June, 1883.

The Reverend Marquis L. Wood was elected president in 1883; he resigned in December, 1884, when Professor John F. Heitman was elected chairman of the Faculty. John Franklin Crowell was chosen president of the College in April, 1887.

[^56]President Crowell conceived the idea of enlarging the scope of college work and of removing Trinity College to a city. The Board of Trustees on May 7, 1889, passed the following resolutions:

Resolved (1). That after mature and prayerful consideration, we believe it best for the interest of Methodism in North Carolina, and the cause of God, to move Trinity College to some prominent center within this State: Provided, There shall he tendered to this Board a proper guarantee of a suitable site, with buildings on it, of at least equal value, and as well suited for the uses of the College as those on the present site.

Resolved (2). That a committee of five be appointed to carry out the true intent of the above resolution, and report to the next annual meeting of the Board of Trustees.

At a meeting of the Trustees held in Greensboro, North Carolina, November 30, 1889, the following resolutions were adopted:

Resolved (1). That the Board of Trustees of Trinity College accept the offer of the citizens of Raleigh to erect a college building on the site designated, said building to be according to the plans and specifications mentioned in their offer.

Resolved (2). That we recommend the N. C. Annual Conference of the M. E. Church, South, to authorize the removal of Trinity College in accordance with the above and former resolutions passed hy this Board.

Resolved (3). That the grounds and buildings now owned and used at Trinity College be held by the same Board of Trustees to be used as an academical department to prepare students for the college classes.

In accordance with these resolutions, through President Crowell, the Conference was asked at its session in Greensboro, December, 1889, to grant permission to remove the College to the City of Raleigh. The Conference took the following action:

Resolved, That the Board of Trustees of Trinity College be and is hereby authorized and directed to move Trinity College to the City of Raleigh, when the citizens of said city shall have erected on the site designated and known as the Boylan lot, the building proposed and agreed to be huilt by them Provided, That hefore said college is moved, as aforesaid, there shall be made, executed and delivered to said Trustees a good and sufficient deed in fee simple with proper covenants of warranty and seizin, conveying the lot and site designated to said Trustees and their successors in office, for the use and benefit of the North Carolina Conference, Methodist Episcopal Church, South, as it now exists, and for the use and the benefit of such Conferences, as may be hereafter created by the Methodist Episcopal Church, South, out of any territory within the State of North Carolina.

Some time after this action of the Conference, Washington Duke and other citizens of Durham, North Carolina, made a proposition to the Trustees to locate the College in Durham, and this proposition was accepted. On January 21, 1891, the Legislature of North Carolina issued the following charter:

## An Act to Amend the Charter of Trinity College: <br> The General Assembly of North Carolina do enact:

Section 1. That the Trustees of Trinity College are authorized and empowered to remove the operations and exercises of said College, and to locate the buildings deemed necessary hy them for the purpose of the College, at or near the town of Durham, North Carolina. They may, if they so elect, establish and maintain in connection with said College institutions of primary and intermediate education at the present site of the College in Randolph County, and at such other points as they may now or hereafter determine, for the purpose of preparing students for admission to a collegiate course. The management of such auxiliary and suhordinate high schools and academies shall be vested in the said Board of Trustees, who are authorized to make by-laws and regulations for them, as well as for the College proper.

SEc. 2. That the Trustees of Trinity College are authorized to receive and hold hy gift, devise or purchase, property, real and personal, to be held for the use of said College and its dependent schools or for the use of either or hoth (as may he designated in the conveyance or will), (to a value not exceeding in the aggregate sum three millions of dollars).

Sec. 3. That the Trustees shall be thirty-six in numher, of whom twelve shall be elected by the North Carolina Conference of M. E. Church, South, twelve by the W. N. C. Conference of said church, and twelve by graduates of said College. The term of office of Trustees shall be six years, and they shall be so arranged that four Trustees shall he elected by each Conference and four hy the graduates every two years. The Trustees shall regulate by hy-laws the manner of election of the Trustees to be chosen hy the graduates. Should there exist a vacancy by death, resignation, or otherwise, of any Trustee, the same shall be filled for the unexpired term by the Board of Trustees. The terms of the Trustees now in office shall expire January first, one thousand eight hundred and ninetytwo. At the first election held under this amendment to the Charter, the body of graduates and each of the Conferences shall respectively elect four Trustees for the term of
two years; in like manner each of said constituencies shall elect four Trustees for the term of four years, and in like manner each shall elect four Trustees for the term of six years.

In September, 1892, the College opened its first session in the new plant located at Durham. In May, 1894, President Crowell resigned, and on August 1, 1894, the Reverend John C. Kilgo was elected his successor. In May, 1897, the Trustees authorized the admission of women as students to all departments of the College.

On account of the fact that the fundamental laws under which the College was managed were contained in an original charter and in several amendments, it was deemed best by the Board of Trustees, in June, 1902, to appoint a committee to make an application to the Legislature for a new charter, which should unify and harmonize the provisions of the existing legislation. On February 28, 1903, the Legislature of North Carolina granted the new charter which is identical with the charter as found on pages $14-15$, except that the corporate name of the institution is changed to Duke University and the corporation is given perpetual existence, an amendment enacted by the General Assembly of North Carolina, January 19, 1911, having already stricken out the limitations set in former charters to the amount of property the College might hold.

Having been elected a bishop of the Methodist Episcopal Church, South. President Kilgo resigned in June, 1910. William Preston Few was elected to succeed him and was formally inaugurated November 9, 1910.

On December 29, 1924, the Board of Trustees of Trinity College met to consider the Indenture of Trust executed by James B. Duke, December 11, 1924. The Board voted unanimously to accept the provisions of the Indenture insofar as it affected Duke University, and authorized the necessary steps to be taken whereby, on December 30, 1924, a charter for the University was granted. The charter follows closely that of Trinity College and is printed on pages 14-15.

President Few died October 16, 1940. Dr. R. L. Flowers was elected President January 29, 1941.

Duke University is approved by the recognized accrediting agencies in the field of university education and is a member of various associations devoted to the interests of such education. Among those in which it holds membership are the Association of American Universities, the Southern Association of Colleges and Secondary Schools, the American Association of Colleges, the Southern University Conference, the American Association of Law Schools. the Association of American Medical Colleges, the American Association of Theological Schools, and others.

## GOVERNMENT

## 1. THE INDENTURE OF TRUST BY WHICH THE UNIVERSITY WAS CREATED

Among the provisions of James B. Duke's indenture of trust was an educational institution to be known as Duke University, in respect to which the Indenture contains the following provisions, and these provisions apply also to gifts made by him the year before he died and to bequests that came to the University at his death or that have come since:
I. (In Article FOURTH) The Trustees hereunder are hereby authorized and directed to expend as soon as reasonably may be not exceeding Six Million Dollars of the corpus of this trust in establishing at a location to be selected by them within the State of North Carolina an institution of learning to be known as Duke University, for such purpose to acquire such lands and erect and equip thereon such buildings according to such plans as the Trustees may in their judgment deem necessary and adopt and approve for the purpose, to cause to be formed under the laws of such state as the Trustees may select for the purpose a corporation adequately empowered to own and operate such properties under the name of Duke University as an institution of learning according to the true intent hereof, and to convey to such corporation when formed the said lands, buildings and equipment upon such terms and conditions as that such corporation may use the same only for such purposes of such university and upon the same ceasing to be so used then the same shall forthwith revert and belong to the Trustees of this trust as and become a part of the corpus of this trust for all the purposes thereof.

However, should the name of Trinity College, located at Durham, North Carolina, a body politic and incorporate, within three months from the date hereof (or such further time as the Trustees hereof may allow) be changed to Duke University, then, in lieu of the foregoing provisions of this division "FOURTH" of this Indenture, as a memorial to his father, Washington Duke, who spent his life in Durham and whose gifts, together with those of Benjamin N. Duke, the brother of the party of the first part, and of other members of the Duke family, have so largely contributed toward making possible Trinity College at that place, he directs that the Trustees shall expend of the corpus of this trust as soon as reasonably may be a sum not exceeding Six Million Dollars in expanding and extending said University, acquiring and improving such lands, and erecting, removing, remodeling and equipping such buildings, according to such plans, as the Trustees may adopt and approve for such purpose to the end that said Duke University may eventually include Trinity College as its undergraduate department for men, a School of Religious Training, a School for Training Teachers, a School of Chemistry, a Law School, Co-ordinate College for Women, a School of Business Administration, a Graduate School of Arts and Sciences, a Medical School and an Engineering School, as and when funds are available.
II. (In Article FIFTH) Thirty-two per cent of said net amount not retained as aforesaid for addition to the corpus of this trust shall be paid to that Duke University for which expenditures of the corpus of the trust shall have been made by the Trustees under the "Fourth" division of this Indenture so long as its name shall be Duke University and it shall not be operated for private gain, to be utilized by its Board of Trustees in defraying its administration and operating expenses, increasing and improving its facilities and equipment, the erection and enlargement of buildings and the acquisition of
additional acreage for it, adding to its endowment or in such other manner for it as the Board of Trustees of said institution may from time to time deem to be of its best interests, provided that in case such institution shall incur any expense or liability beyond provision already in sight to meet same, or in the judgment of the Trustees under this Indenture be not operated in a manner calculated to achieve the results intended hereby the Trustees under this Indenture may withhold the whole or any part of such percentage from said institution so long as such character of expense or liabilities or operation shall continue, such amounts so withheld to be in whole or in part either accumulated and applied to the purposes of such University in any future year or years, or utilized for the other objects of this Indenture, or added to the corpus of this trust for the purpose of increasing the principal of the trust estate, as the Trustees may determine.
III. (In Article SEVENTH) I have selected Duke University as one of the principal objects of this trust because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical, lines, is, next to religion, the greatest civilizing influence. I request that this institution secure for its officers, trustees, and faculty, men of such outstanding character, ability, and vision as will insure its attaining and maintaining a place of real leadership in the educational world, and that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination, and application evincing a wholesome and real ambition for life. And I advise that the courses at this institution be arranged, first, with special reference to the training of preachers, teachers, lawyers and physicians, because these are most in the public eye, and by precept and example can do most to uplift mankind, and second, to instruction in chemistry, economics, and history, especially the lives of the great of earth, because I believe that such subjects will most help to develop our resources, increase our wisdom and promote human happiness.
IV. (In Article THIRD) As respects any year or years and any purpose or purposes for which this trust is created (except the payments hereinafter directed to be made to Duke University) the Trustees in their uncontrolled discretion may withhold the whole or any part of said incomes, revenues and profits which would otherwise be distributed under the "Fifth" division hereof, and either (1) accumulate the whole or any part of the amount so withheld for expenditures (which the Trustees are hereby authorized to make thereof) for the same purpose in any future year or years, or (2) add the whole or any part of the amounts so withheld to the corpus of the trust, or (3) pay, apply and distribute the whole or any part of said amounts to and for the benefit of any one or more of the other purposes of this trust, or (4) pay, apply and distribute the whole or any part of said amounts to or for the benefit of any such like charitable, religious or educational purpose within the State of North Carolina or the State of South Carolina, or any such like charitable hospital purpose which shall be selected therefor by the affirmative vote of three-fourths of the then Trustees at any meeting of the Trustees called for the purpose, complete authority and discretion in and for such selection and utilization being hereby given the Trustees in the premises.

## 2. THE CHARTER OF THE UNIVERSITY

Section 1. That A. P. Tyer, J. H. Southgate, B. N. Duke, G. A. Oglesby, V. Ballard, J. A. Long, J. F. Bruton, J. N. Cole, F. A. Bishop, J. G. Brown, C. W. Toms, J. W. Alspaugh, W. R. Odell, J. A. Gray, F. Stikeleather, Kope Elias, S. B. Turrentine, P. H. Hanes, T. F. Marr, G. W. Flowers, M. A. Smith, R. H. Parker, W. J. Montgomery, F. M. Simmons, O. W. Carr, R. A. Mayer, N. M. Jurney, Dred Peacock, B. B. Nicholson, W. G. Bradshaw, E. T. White, T. N. Ivey, J. B. Hurley, R. L. Durham, W. C. Wilson, and their associates and successors shall be, and continue as they have been, a body politic and corporate under the name and style of DUKE UNIVERSITY, and under such name and style shall have perpetual existence and are
hereby invested with all the property and rights of property which now belong to the said corporation, and said corporation shall henceforth and perpetually, by the name and style of DUKE UNIVERSITY, hold and use all the authority, privileges, and possessions it had or exercised under any former title and name, and be subject to all recognized legal liabilities and obligations now outstanding against said corporation.

Sec. 2. That such corporation is authorized to receive and hold by gift, devise, purchase or otherwise, property, real and personal, to be held for the use of said University and its dependent schools or for the use of either or both (as may be designated in the conveyance or will).

Sec. 3. That the Trustees shall be thirty-six in number, of whom twelve shall be elected by the North Carolina Conference of the M. E. Church, South; twelve by the W. N. C. Conference of the said church; and twelve by the graduates of said University; Provided, however, That no person shall be elected a Trustee till he has first been recommended by a majority of the Trustees present at a regular meeting; and the Trustees shall have power to remove any member of their body who may remove beyond the boundary of the State or who may refuse or neglect to discharge the duties of a Trustee. The term of office of Trustees shall be six years, and they shall be so arranged that four Trustees shall be elected by each Conference and four by the graduates every two years. The Trustees shall regulate by bylaws the manner of election of the Trustees to be chosen by the graduates. Should there exist a vacancy by death, resignation, or otherwise of any Trustee, the same shall be filled for the unexpired term by the Board of Trustees. That the present Trustees shall continue and remain in office during the term for which they have been heretofore respectively elected.

Sec. 4. That the said corporation shall be under the supervision, management and government of a president and such other persons as said Trustees may appoint; the said president, with the advice of other persons so appointed, shall from time to time make all needful rules and regulations for the internal government of said University and prescribe the preliminary examinations and the terms and conditions on which pupils shall be received and instructed.

Sec. 5. That said Trustees shall have power to make such rules, regulations, bylaws not inconsistent with the Constitution of the United States and of this State, as may be necessary for the good government of said University and management of the property and funds of the same.

Sec. 6. That the Trustees shall have power to fix the time of holding their annual and other meetings, to elect a president and professors for said University, to appoint an executive committee to consist of seven members, which committee shall control the internal regulations of said University and fix all salaries and emoluments, and to do all other things necessary for an institution of learning not inconsistent with the laws of this State and of the United States.

Sec. 7. That the Faculty and Trustees shall have the power of conferring such degrees and marks of honor as are conferred by colleges and universities generally; and that five Trustees shall be a quorum to transact business.

Sec. 8. That all laws and parts of laws or of the charter heretofore granted which are in conflict with this act are hereby repealed.

Sec. 9. That this act shall be in force from and after its ratification and acceptance by the Board of Trustees.

## 3. THE BYLAWS OF THE UNIVERSITY

1. Aims of the University. The aims of Duke University are to assert a faith in the eternal union of knowledge and religion set forth in the teachings and character of Jesus Christ, the son of God; to advance learning in all lines of truth; to defend scholarship against all false notions and ideals; to develop a Christian love of freedom and truth; to promote a sincere spirit of tolerance; to discourage all partisan and sectarian strife; and to render the largest permanent service to the individual, the state, the nation, and the church. Unto these ends shall the affairs of this University always be administered.
2. The University Trustees. The Alumni Trustees, nominated by the Board as provided for in the charter, are elected by the Alumni Association. The officers of the Board are chairman, vice-chairman, and recording secretary. The chairman calls to order and presides at all meetings of the Board, calls extraordinary meetings when, in his judgment, such meetings may be necessary, and represents the Trustees at public meetings of the University. He is ex-officio member of the Executive Committee. In the absence of the chairman the vice-chairman calls to order and presides over meetings of the Board, but does not perform any of the other duties of the chairman unless ordered to do so by the Board of the Executive Committee. The recording secretary records the minutes of all the meetings, does the correspondence, and is the custodian of the records and other documents that may belong to the Board.
3. The Executive Committee. The Executive Committee consists of seven members, three of them from the University Trustees, including the chairman ex-officio, three from the Endowment Trustees, and the President of the University ex-officio. It performs the duties set out for it in the charternamely, controls the internal regulations of the University and fixes all salaries and emoluments. The Committee is furthermore authorized to appoint officers and teachers of the University subject to the approval of the University Trustees. The Committee is elected by the University Trustees, three of them on nomination of the Endowment Trustees, and the Committee elects its own officers. It meets once a month and oftener when necessary. The Committee through its chairman makes annually a report to the University Trustees.
4. Officers of the University. The officers of the University are a president, three vice-presidents, a treasurer, a dean of the University, and such other deans as may be needed, a recording dean or registrar, and a secretary who is also secretary of the faculty. Whenever it may seem wise, more than one of these offices may be held by one man.

President. The President of the University calls, and presides at, all the meetings of the Faculties, sees that the laws and regulations of the Executive Committee and the Trustees affecting the administration and work of the University are carried out, appoints all committees of the Faculties and has direction of the discipline and work of the University. He has the authority to veto any action of the Faculties, when, in his judgment, such action is not in harmony with the aims and laws of the University, or when he may deem such action as unwise. However, in every instance he shall submit to the Faculty in writing his reasons for setting aside their action, and the secretary of the Faculty shall record his reasons in the record book of the Faculty. The President makes an annual report to the Board of the work, conditions, and needs of the University, and of other matters that may be of concern to it or to the cause of higher education. He nominates all members of the Faculties, and represents them at all public meetings of the University. He is an ex-officio member of the Executive Committee; and acts as the medium of communication between the University Trustees and the Endowment Trustees.

Vice-President. The three Vice-Presidents of the University have supervision of the work of the University in the divisions of (a) business, (b) education, and (c) student life. In the absence of the President, Vice-Presidents in the order of official seniority may perform such duties of the President as may demand immediate attention.

Treasurer. The Vice-President in the Business Division and Treasurer has the custody of all the property of the University, that is, he has the primary responsibility for all collections and disbursements, for all securities and financial records, and for the care of the entire physical plant. He is required to make monthly reports to the Executive Committee and annual reports to the Trustees concerning his accounts and the property in his charge. It shall be the duty of the Treasurer to nominate to the Executive Committee an assistant treasurer and other assistants in sufficient number to do well the duties of his office. All officers entrusted with property belonging to the University are required to keep records of the same and these records are
at all times subject to the inspection of the Treasurer. The treasurer and his assistants shall be required to give bond, joint or several, in an amount not less than $\$ 50,000$ for the faithful performance of their duties.
5. Faculties. The General Faculty of the University is composed of professors, associate professors, and assistant professors who have been elected to membership in the Faculty. Concerning questions that do not lie exclusively in the field of any one Faculty and questions of University educational policy this Faculty has the right to enact such regulations as it may deem necessary to carry on the instruction, advance the standard of work, and otherwise develop the scholarly aims of the University. The General Faculty recommends to the University Trustees such persons as it deems fit to receive academic degrees or other marks of academic distinction. This Faculty meets twice a year and at other times on the call of the President or Dean of the University, or on the written request of five members.

The professional schools have their own faculties, each with its dean and other appropriate officers elected by the Executive Committee with the approval of the University Trustees, and each is authorized to perform any educational functions that lie in its field.

The Faculty Council includes the Deans and Assistant Deans of Trinity College and the Woman's College, the Dean of the Graduate School, the Secretary of the General Faculty, the Chairman and Director of Undergraduate Studies in each department offering instruction in the undergraduate colleges of liberal arts and sciences, one additional member elected by each department that has five or more teachers giving instruction in arts and sciences, and such others as may be appointed to membership in the Council by the governing bodies of the University. The Council meets once a month and considers questions of curriculum in the field of arts and sciences and other educational details and policies that are outside the functions of any one faculty.

The Council on Undergraduate Teaching consists of the Deans and Assistant Deans of Trinity College, the Woman's College, the College of Engineering, some other officers and appointed members, and teachers of all ranks who are giving fifty per cent or more of their time to the instruction of undergraduates. Courses to which both Seniors and graduates are admitted are understood as intended primarily for graduate students. The business of this Council is to stimulate good teaching and to find ways and means to make college teaching as effective as possible. It has the right to take such action as may be necessary to promote these ends.

The Council on the Instruction of Freshmen is composed of the Dean of Undergraduate Instruction, the Dean of Freshmen, and the Supervisor of Freshmen Instruction from each department offering courses for Freshmen. It considers policies and matters of detail as affecting Freshman instruction and also provision for the general welfare of Freshmen. The Freshmen Council makes recommendations to the Faculty Council for action in matters of general policy. The Freshman Council has the power to call upon members of the Faculty for reports or other information pertaining to the instruction of Freshmen at such dates as it may determine.

The Council on Education for Women consists of the Dean of the Woman's College and of one representative from each department offering courses which are largely taken by women students. It shall consider matters of interest and policy relating to the instruction and general welfare of the women students of the University, and make recommendations to the President, or the Faculty Council. The members of the Council on Education for Women are appointed by the President of the University.

The Council on Engineering Instruction consists of the Dean of the College of Engineering, the Secretary of the College, the Dean of the University, the Chairmen of the several departments in engineering, one representative to be appointed by the President of the University from each of the Departments of Mathematics, Physics, Chemistry, Economics, English. The Council deals with questions relating to instruction in engineering, the welfare of engineering
students, and the cause of engineering in general. The Executive Committee consists of the Dean and the Secretary of the College of Engineering, and the Chairmen of the Departments of Civil, Electrical, and Mechanical Engineering.

The Council on Graduate Instruction consists of members of the Faculty above and including the ranks of associate professor who give at least half of their time to graduate work under the direction of the Graduate School, and others who may be appointed by the Governing Bodies of the University. One member is appointed from each of the professional schools which give courses for graduate credit, and in some cases more than one. The Council has to do with whatever pertains to instruction and requirements for degrees in the Graduate School of Arts and Sciences.

The Executive Committee of the Council on Graduate Instruction consists of the Dean and six members appointed by the President upon the recommendation of the Dean. Blanks are distributed once a year to each member of the Council with the request that six names be entered on the blank as his suggestions for members of the Committee. It is understood that the Dean is to take these suggestions into account in his recommendations to the President. Insofar as possible the Humanities, Biological and Physical Sciences, Social Sciences, and other fields are to be represented on the Executive Committee. No more than four of the six committee members are to be reappointed for any ensuing year.
6. Academic Year. The academic year begins on the morning of the Wednesday following September 15. The annual Commencement comes in the week including the first Sunday in June. The Christmas recess begins at 1:00 P.M. December 20 (or December 19 if December 20 falls on Sunday), and ends at 8:00 A.M., January 3 (or January 4 if January 3 falls on Sunday). The spring recess begins at 1:00 P.M. of the Saturday in March nearest to March 25, and ends at 8:00 A.M., of Monday nine days later. Thanksgiving Day is a holiday.
7. Tenure of Office. Teachers of all ranks are subject to removal by the Executive Committee, with the approval of the University Trustees, for misconduct or neglect of duty. Teachers may be elected for terms of one, two, three, or four years; or teachers with the rank of professor may be elected without time-limit. Administrative officers are usually elected without time-limit, but the Executive Committee, with the approval of the University Trustees, may remove any officer of the University whenever, in their opinion, he is not properly performing the duties of his office.
8. The bylaws may be amended at any regular meeting of the University Trustees by the affirmative vote of two thirds of the full membership of the Board, provided that the proposed amendment is submitted through the Secretary of the Board to the members at least twenty days before the meeting.

## SABBATICAL LEAVE

Sabbatical leave of absence for members of the General Faculty is granted under regulations adopted by the Executive Committee of the Trustees on March 28, 1923, revised in 1928, partly in abeyance in the year 1933-34 and the succeeding three years, and restored in the year 1937-38. The conditions on which sabbatical leave of absence is granted are set forth below.

1. Every member of the General Faculty (composed of professors, associate professors, and assistant professors) is eligible for sabbatical leave after six years in the service of the University. Such leave may be taken for a full year at half salary or a half year at full salary.
2. In order to obtain a sabbatical leave written request for such leave must be filed with the President of the University by December 1 of the academic year preceding the one in which the leave is to take effect.
3. If in exceptional cases it should develop that the granting of leave to an applicant during the year for which application is made would raise very serious difficulties detrimental to the best interests of the applicant's depart-
ment or school, or the interests of the institution as a whole; or because of questions concerning the applicant's period of service prior to the leave, the President shall appoint a committee which shall have power to decide the question of granting the sabbatical leave for the particular year under consideration. This committee shall consist of five members as follows: two members of the general faculty appointed yearly by the President, the Treasurer of the University, the Dean of the school or college of which the applicant is a member, the chairman of the applicant's department, or should no such chairman exist another member of the applicant's department.
4. If this committee should decide against the granting of a sabbatical leave for the year for which the applicant applied, the applicant would be eligible for sabbatical leave the following year or any year thereafter upon making application in due form as above.
5. After September 1, 1928, if a member of the faculty on becoming eligible for sabbatical leave does not for some special reason apply for such leave, he may count the additional years of service prior to his leave toward the six years of service necessary before he can apply for a subsequent leave. If in an exceptional case an applicant for personal reasons applies for a sabbatical leave tc. be effective in advance of his regular year and such leave is granted, he shall not be eligible for a subsequent leave until he has served six years plus the number of years by which this leave is advanced.
6. On recommendation of the committee after leave of absence has been granted it may be postponed for urgent reasons and under conditions to be determined by the committee.
7. All those cases which have occurred in the past or which may occur in the future in which leave of absence is granted under conditions where the absentee receives full pay for a half year or half pay or more for a full year's leave of absence shall be considered as regular sabbatical leave under these regulations.
8. These revised regulations became effective as of September 1, 1928, and sabbatical leaves under such regulations began with the academic year 1929-30. The regulations were partly in abeyance in 1933-34, 1934-35, 1935-36, and 1936-37. The restoration of the regulations begins with the academic year 1937-38. The four years, 1933-34, 1934-35, 1935-36, and 1936-37, may not count toward the six years of service necessary before application can be made for leave of absence. In all cases in which special arrangements have been made for the granting of sabbatical leave (as described in condition No. 7) during the period of partial abeyance of the plan, the next six years of service shall be counted as beginning with the academic year 1937-38. All other members of the General Faculty who apply for sabbatical leave may count the years of service they had to their credit at the beginning of the academic year 1933-34.

## GOVERNING BODIES AND OFFICERS

## EXECUTIVE COMMITTEE OF THE UNIVERSITY

(Consisting of three members from the University Trustees, three from the Endowment Trustees, and the President of the University.)

|  | Year of Election |  |  |
| :---: | :---: | :---: | :---: |
| *J. F. Bruton, Chairman. | . 1918. | Wilson, | N. C. |
| Willis Smith, Chairman | . 1946. | Raleigh, | N. C. |
| G. G. Allen. | . 1923. | New York, | N. Y. |
| M. E. Newsom | . 1917. | Durham, | N. C. |
| W. N. Reynolds | . 1933. | Winston-Salem, | N. C. |
| J. H. Separk. | . 1929. | Gastonia, | N. C. |
| A. H. Sands, Jr. | . 1946. | New York, | N. Y. |
| R. L. Flowers. | . 1923. | Durham, | N. C. |

## UNIVERSITY TRUSTEES

## Term Expires December 31, 1949



Term Expires December 31, 1951


## FROM THE ALUMNI

| N. E. Edgerton. | 1941..... . Raleigh, | N. C. |
| :---: | :---: | :---: |
| A. R. Kearns. | 1945...... High Point, | N. C. |
| R. A. Mayer. | .1897.... . . Charlotte, | N. C. |
| W. A. Stanbury........ <br> * Died, March 27, 1946. <br> $\dagger$ Died, June 25, 1946. | .1933....... Gastonia, | N. C. |

Term Expires December 31, 1947

| F. Bruton, Chairman. | .1900.... . . Wilson, | N. C. |
| :---: | :---: | :---: |
| B. Craven. | .1941. . . . . . Charlotte, | N. C. |
| D. S. Elias. | .1929. . . . . . Asheville, | N. C. |
| P. H. Hanes | .1912. . . . . Winston-Salem, | N. C. |
| J. L. Horne, Jr | .1934...... Rocky Mount, | N. C. |
| B. E. Jordan. | .1943..... . Saxapahaw, | N. C. |
| S. B. Turrentine | .1893...... Greensboro, | N. C. |
| E. W. Webb. | .1933.......New York, | N. Y. |

FROM THE ALUMNI

| S. Alderman. | 4..... . Washington, | D. C. |
| :---: | :---: | :---: |
| W. N. Reynolds. | .1927..... . Winston-Salem, | N. C. |
| J. H. Separk | .1916. . . . . . Gastonia, | N. C. |
| Willis Smith, Cl | .1929...... . Raleigh, | N. C. |

## ENDOWMENT TRUSTEES



## COMMITTEES OF THE UNIVERSITY TRUSTEES

Buildings and Grounds: J. R. Smith, Cherry.<br>Business Administration of the University: Hanes, Elias, Bowling, Doss.<br>Colleges: Alderman, Horne, Ivey.<br>Divinity School: Peele, Grant, Porter, Edgerton.<br>School of Forcstry: Newsom, Few, Cherry, Edgerton.<br>Graduate School: Webb, Turrentine, Flowers, Craven.<br>Lazu School: Willis Smith, Womble, Cherry, Frizzelle.<br>Library: Stanbury, Hanes, Lambeth.<br>Medical School and Hospital: Mayer, Proctor, $\dagger$ Nalle.<br>Physical Education and Intercollegiate Athletics: Separk, J. R. Smith, Proctor, Jordan.<br>* Died, March 27, 1946.<br>† Died, June 25, 1946.

## OFFICERS OF ADMINISTRATION

## GENERAL ADMINISTRATION

Flowers, Robert Lee, A.M., LL.D.
President of the University
West Campus
Wannamaker, William Hane, A.B., A.M., Litt.D.
Vice-President and Dean of the University
West Campus
Markham, Charles Blackivell, A.B., A.M.
Treasurer of the University
Herring, Herbert James, A.B., A.M.
Vice-President of the Unizersity and Dean of Trinity College
Jordan, Charles Edward, A.B., LL.D.
Vice-President and Secretary of the Unizersity 813 Vickers Avenue
Brower, Alfred Smith, A.B.
Administrative Assistant
Washington Duke Hotel

## BUSINESS ADMINISTRATION

Markham, Charles Blackwell, A.B., A.M.
Treasurer of the University
204 Dillard Street
Jordan, Charles Edward, A.B., LL.D. Secretary of the University

813 Vickers Avenue
Henricksen, Gerhard Chester, A.B., A.M., C.P.A.
Assistant Treasurer 216 Forest Wood Drive, Forest Hills
Weatherspoon, Everett Broadus, A.B. Assistant Secretary

125 Pinecrest Road
Tyree, William Allen, A.B.
Director in the Business Division
610 Buchanan Boulevard
Whitford, William Edward, A.B. Director in the Business Division 804 Third Street
Howard, William Kenneth, B.S. Assistant Director in the Business Division Duke University
Minah, Theodore Warren, B.S., B.S. in H.M. Manager, Duke University Dining Halls

2519 State Street
Doxey, John Eliwood, A.B., A.M. Purchasing Agent, Duke University 1004 Broad Street
Holloway, Mrs. Ida Cahoon
Manager, Duke University Stores Glenn Apartments, Dacian Avenue
*Upchurch, Walter McGowan, Jr., A.B., LL.B.
Financial Adviser, Student Activities
Johnson Apartments

* Resigned, June 30, 1946.


## ALUMNI AFFAIRS AND NEWS SERVICE

Dukes, Charles Aubrey, A.B. Director, Alumni Affairs
Garrard, Anne, A.B., A.M. Assistant Director, Alumni Affairs
*Wilkinson, Albert Alexander, A.B.
Director, the New's Service
1023 Gloria Avenue

Boyden, Lucile K., A.B.
Acting Director, the News Service
2809 Legion Avenue

Mann, Glenn Edward, A.B.
Manager Athletic Division, the News Service
Duke University
Duke University
Brice, Ashbel Green, A.B., A.M.
Assistant Editor, Duke University Press
$81+$ Sixth Street
$\dagger$ Upchurch, Walter McGowan, Jr., A.B., LL.B.
Director, Appointments Office
Mitchell, Fannie Yarborough Acting Director, Appointments Office

1507 W. Pettigrew Street

## EDUCATIONAL ADMINISTRATION

Wannamaker, William Hane, A.B., A.M., Litt.D. Dean of the University

West Campus

## UNDERGRADUATE COLLEGES

Herring, Herbert James, A.B., A.M. Dean of Trinity College

Myrtle Drive, West Campus
Baldwin, Alice Mary, A.B., A.M., Ph.D., Ll.D.
Dean of the Woman's College
East Campus
Hall, William Holland, A.B., A.M., B.C.E., M.S.C.E.
Dean of the College of Engineering
922 Urban Avenue
Manchester, Alan Krebs, A.B., A.M., Ph.D.
Dean of Freshmen, Trinity College
Myrtle Drive, West Campus
Smith, Mrs. Ruth Slack, A.B., A.M. East Campus
Associate Dean of Undergraduate Instruction, Woman's College
Persons, Mrs. Elizabeth Anderson, A.B., A.M.
Director of Admissions, Woman's College
612 Swift Avenue

* Resigned, September 10, 1945.
$\dagger$ Resigned, June 30, 1946.

Huckaree, Ellen Harris, A.B., A.M.
Academic Adviser of Freshmen and Sophomores, Woman's College

East Campus
Truesdale, James N., A.B., A.M., Ph.D. Assistant to the Dcan of Trinity College

Duke University
Cox, Robert B., A.B., A.M.
Assistant to the Dean of Trinity College
Duke University

* Cleaveland, Frederic Neill, A.B., A.M. Assistant Dean of Men

Duke University
$\dagger$ Watson, Karl Brantley, A.B., B.S., A.M., Plı.D.
Director, Bureau of Testing and Guidance
1102 Virginia Avenue
Easley, Howard, A.B., M.A., Ph.D.
Acting Director, Burcau of Testing and Guidance Guess Road

## GRADUATE AND PROFESSIONAL SCHOOLS

Hoover, Calvin Bryce, A.B., Ph.D., Litt.D. 1702 Duke University Road Dean of the Graduate School of Arts and Sciences
$\ddagger$ Robert, Joseph Clarke, A.B., A.M., Ph.D.
Assistant Dean of the Graduate School 1102 B Street
Maxwell, William Cary, A.B., A.M., Ph.D. Assistant to the Dean of the Graduate School

Pinecrest Road
Branscomb, Bennett Harvie, A.B., B.A., M.A., Ph.D., Litt.D. Dean of the Divinity School

Hope Valley
Russell, Elbert, A.B., A.M., Ph.D., Litt.D. Dean Emeritus of the Divinity School

804 Fourth Street
Horack, Hugo Claude, Ph.B., LL.B., LL.D. Dean of the School of Lazv

Myrtle Drive, West Campus
Davison, Wilburt Cornell, A.B., B.A., B.Sc., A.M., D.Sc., M.D., Ll.D. Dean of the School of Medicine

Hope Valley
Pinkerton, Margaret Isabel, R.N., B.S. Dean of the School of Nursing

412 Swift Avenue
Korstian, Clarence Ferdinand, B.S.F., M.F., M.A., Ph.D.
Dean of the School of Forestry 1718 Duke University Road
Holton, Holland, A.B., J.D. Director of the Summer Session 809 Watts Street

Coleman, Margaret, A.B., A.M. Recorder, Trinity College 918 Urban Avenue
Kendall, Helen Mildred, A.B. Registrar, School of Laze

8 Aycock Apartments
Bishop, Lyda Josephine, A.B. Recorder, Woman's College 911 N. Gregson Street

## INSTRUCTIONAL STAFF

This alphabetical list includes all members of the various faculties of the University. The date denotes the first year of service.
Acomb, Frances Dorothy, (1945) A.B., A.M., Ph.D. Visiting Assistant Professor of History

Faculty Apartments

* Resigned, January 24, 1946.
$\dagger$ Absent on leave, 1946-47.
$\ddagger$ Resigned, October 31, 1945.

Adams, Donald Keith, (1931) A.B., M.A., Ph.D. Professor of Psychology
Addoms, Ruth Margery, (1930) B.A., M.A., Ph.D. Associate Professor of Botany

Cornwallis Road

1003 Lamond Avenue
*Allen, Clark Lee, (1941-43; 1945) A.B., A.M., Ph.D. Assistant Professor of Economics

626 Swift Avenue
Alyea, Edwin Pascal, (1930) S.B., M.D. Clinical Professor of Urology

Hope Valley
Anderson, Lewis Edward, (1936) B.S., A.M., Ph.D. Associate Professor of Botany' 1525 Fairfax Road
Anderson, Villiam Banks, (1930) A.B., M.D. 503 E. Forest Hills Blvd. Associate Professor of Surgery in charge of Ophthalmology
Ansbacher, Heinz L., (March 1 to June 30, 1946) Ph.D. Visiting Assistant Professor of Psychology

Duke University
Archie, William Council, (1946) A.B., A.M., Ph.D. (to be conferred Sept., 1946) Assistant Professor of Romance Languages Duke University
Arena, Jay Morris, (1933) B.S., M.D. Assistant Professor of Pediatrics 2032 Club Boulevard
Atwood, Theodore W., (1934) A.B., D.M.D. Associate in Dentistry

Allenton Apartments
Aycock, Thomas Malcolm, (1937) B.S., M.S. Associate Professor of Physical Education

University Apartments
Badenoch, Ernest L., (1943) B.S., M.A. Instructor in Speech

305 Francis Street
Bailey, Joseph R., (1946) A.B., M.A., Ph.D. Instructor in Zoology

Duke University
Baker, Lenox Dial, (1937) M.D. Associate Professor of Surgery in charge of Orthopaedics Hope Valley
Banham, Katharine May, Mrs., (1946) B.S., M.A., Ph.D. Associate Professor of Psychology

Duke University
Barnhart, Francis E., (1946) A.B. Instructor in Speech

Duke University
Baum, Paull Franklin, (1922) A.B., A.M., Ph.D. Professor of English

112 Pinecrest Road
Baylin, George Jay, (1939) A.B., M.D.
2260 Cranford Road Associate Professor of Radiology and Associate in Anatomy
Beach, Waldo, (1946) A.B., B.D., Ph.D. Assistant Professor of Christian Ethics Duke University
Beal, James Allen, (1939) B.S., M.S., Ph.D. Professor of Forest Entomology

2232 Cranford Road
Beard, Dorothy Waters, Mrs., (1938) R.N. Research Associate in Surgery
Beard, Joseph W., (1937) B.S., M.D.
Hillsboro, N. C. Associate Professor of Surgery in charge of Experimental Surgery
Bernheim, Frederick, (1930) A.B., Ph.D. Professor of Pharmacology Woodridge Drive, Rockwood
Bernheim, Mary Lilias Christian, Mrs., (1930) B.A., M.A., Ph.D. Assistant Professor of Biochemistry Woodridge Drive, Rockwood *Resigned, June 30, 1946.

Berry, Edward Willard, (1936) A.B., Ph.D. Associate Professor of Geology'

1003 N. Gregson Street
Berry, Lucta Kendall, Mrs., (1944) B.S.
Instructor in Health Education
410 Watts Street
*Berry, Thomas Senior, (1935) S.B., M.A., Ph.D. Instructor in Economics

100 Vineyard Street
Bertholf, Donald Earl, (1945) B.S., Lieutenant, U. S. Naval Reserve
Assistant Professor of Naval Science and Tactics 1311 Garnett Avenue
Bevington, Merle Mowbray, (1942) A.B., M.A., Ph.D.
Associate Professor of English
2607 Chapel Hill Road
Bigelow, Lucius Aurelius, (1929) S.B., Ph.D.
Professor of Chemistry
131 Pinecrest Road
Billig, Otto, (1941) M.D.
Associate in Neuropsychiatry Duke Hospital
Binkley, Margaret B., (1946) R.N., B.S.
Assistant Professor of Nursing Education Duke Hospital
Bird, Harold Crusius, (1926) Ph.B., C.E.
Professor of Civil Engineering
1209 Virginia Avenue
Black, Martin Lee, Jr., (1930) A.B., M.B.A., C.P.A.
Professor of Accounting 135 Pinecrest Road
$\dagger$ Blackburn, William Maxwell, (1926) A.B., B.A., M.A., Ph.D.
Associate Professor of English 715 Anderson Street
Black-Schaffer, Bernard, (1945) B.Sc., M.D. Associate in Pathology

Chapel Hill Road
Blomquist, Hugo Leander, (1920) B.S., Ph.D. Professor of Botany

922 Demerius Street
Bolich, William Bryan, (1927) A.B., B.A. (Juris.), M.A., B.C.L. Professor of Lazw Hope Valley
Bone, Allan Hadley, (1944) B.A., M.M. Assistant Professor of Music 308 Greenwood Drive
*Bonner, Lyman Gaylord, (1937) A.B., Ph.D. Assistant Professor of Physics

2708 Nation Avenue
Bookhout, Cazlyn Green, (1935) A.B., A.M., Ph.D. Associate Professor of Zoology

1307 Alabama Avenue
Bookhout, Elizabeth Circle, Mrs., (1932-43; 1945) A.B., M.S.
Assistant Professor of Physical Education 1307 Alabama Avenue
Boutwell, Frederick Kent, (1946) B.S.
Visiting Instructor in Mechanical Engineering Duke University
Bowman, Francis E., (1945) A.B., M.A., Ph.D. Assistant Professor in English General Delivery, Chapel Hill, N. C.
Boyer, Charles Chester, (March 1, 1946-June 30, 1946) B.S., A.MI.
Visiting Instructor in Zoology Duke University
Bradley, John David, (1945) A.B., B.S., M.D. Instructor in Neuropsychiatry

Duke Hospital
Bradley, Samuel McKee, (November 1, 1941-June 30. 1946) A.B., A.M.
Visiting Instructor in English Duke University

* Resigned, June 30, 1946.
$\dagger$ Absent on leave, Government Service, first semester, 1945-1946.

Bradsher, Charles Kilgo, (1939) A.B., M.A., Ph.D. Assistant Professor of Chemistry

2302 Elder Street
Bradway, John Saeger, (1931) A.B., A.M., LL.B. Professor of Law

2621 Stuart Drive
Branning, Nancy Bowman Wise, Mrs., (1937) A.B., M.D. Associate in Medicine 2106 Woodrow Street
Branscomb, Bennett Harvie, (1925) A.B., B.A., M.A., Ph.D., Litt.D. Professor of New Testament and Dean of the Divinity School

Chelsea Circle, Hope Valley
*Bridgers, Furman Anderson, (1926) A.B., A.M. Assistant Professor of Romance Languages 1325 Arnette Avenue
Brown, Carl Fraser, (1943) A.B., M.A., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 2518 Banner Street
Brown, Frances, (1931) A.B., Ph.D. Associate Professor of Chemistry 205 Jones Street
Brown, Harold William, (1943) A.B., M.S., Sc.D., Dr.P.H., M.D. Visiting Lecturer in Preventive Medicine and Public Health Duke Hospital
Brownell, William Arthur, (1930) A.B., A.M., Ph.D., LL.D. Professor of Educational Psychology

Hope Valley
$\dagger$ Bruinsma, Henry A., (1938) B.M., M.M. Assistant Professor of Music Duke University
Bryson, Thaddeus Dilliard, (1928) LL.D. Professor of Lazu

Hope Valley
Burnham, Hilda Claire, (1940) R.N. Instructor in Principles and Practice of Nursing and Instructor of Nursing Education

Duke Hospital
Callaway, Jasper Lamar, (1937) B.S., M.D. Associate Professor of Medicine in charge of Dermatology and Syphilology

828 Anderson Street
Cameron, Edmund McCullough, (1926) A.B. Director of Physical Education and Athletics, and Assistant Coach of Football Hope Valley
Cannon, James, III, (1919) A.B., A.M., Th.B., Th.M., D.D. Ivey Professor of History of Religion and Missions 803 Second Street
Carlitz, Leonard, (1932) A.B., A.M., Ph.D. Professor of Mathematics 2303 Cranford Road

Carpenter, David Williams, (1929) A.B., A.M., Ph.D. Associate Professor of Physics

137 Pinecrest Road
Carr, John Winder, Jr., (1926) A.B., A.M., Ph.D. Professor of Education

926 Monmouth Avenue
Carroll, Eber Malcolm, (1923) A.B., A.M., Ph.D. Professor of History

University Apartments
Carroll, R. Charman, (1943) A.B., M.D. Associate in Neuropsychiatry

Faculty Apartments
Carroll, Robert Sproul, (1941) M.D. Lecturer in Neuropsychiatry

Asheville, N. C.

* Absent on sabbatical leave, 1946-47.
$\dagger$ Resigned, June 30, 1946.

Carter, Bayard, (1931) A.B., B.A., M.A., M.D. Professor of Obstetrics and Gynecology

Myrtle Drive, West Campus
Childs, Benjamin Guy, (1924) B.A., M.A.
Professor of Education
Church, Margaret, (1946) A.B., M.A., Ph.D. Instructor in English

1019 West Markham Avenue

Clark, Elon Henry, (1934)
Assistant Professor of Medical Art and Illustration 2802 Legion Avenue
Clark, Kenneth Willis, (1931) A.B., B.D., Ph.D. 1308 Markham Avenue Professor of New Testament Language and Literature
Cleland, James T., (1945) M.A., B.D., Th.M. 2117 Myrtle Drive Professor of Homiletics and Preacher to the University
*Clyde, Paul Hibbert, (1937) A.B., A.M., Ph.D.
Professor of History
Cohen, Louis David, (1946) B.A., M.A. Associate in Clinical Psychology

Faculty Apartments

Coile, Theodore Stanley, (1935) B.S.F., M.F., Ph.D. Associate Professor of Forest Soils

Duke University
Hillsboro Road
$\dagger$ Cole, Robert Taylor, (1935) A.B., A.M., Ph.D. Professor of Political Science

Sylvan Road
Conant, Norman Francis, (1935) B.S., A.M., Ph.D. Associate Professor of Bacteriology and Mycology Tuscaloosa Forest
$\ddagger$ Constant, Frank Woodbridge, (1930) B.S., Ph.D. Associate Professor of Physics

2239 Cranford Road
**Cooke, Thomas Cheatham, (1943) Visiting Instructor in Mechanical Engineering

2209 Wilson Street
Cooper, Albert Derwin, (1934) A.B., M.D. Instructor in Medicine
Cooper, Gerald Rice, (1942) A.B., A.M., Ph.D. Research Associate in Surgery

2105 Chapel Hill Road
Cowper, Frederick Augustus Grant, (1918) A.B., A.M., Ph.D. Professor of Romance Languages 1017 Dacian Avenue
Coxe, Alexander Bacon, Jr., (1945) B.S., Commander, U. S. Navy Associate Professor of Naval Science and Tactics Chapel Hill, N. C.
Craig, Robert Lawrence, (1939) B.A., M.D. Instructor in Neurology

919 Monmouth Avenue
Crispell, Raymond S., (1933) A.B., M.D. Associate Professor of Neuropsychiatry

Duke University
Crum, Mason, (1930) A.B., Ph.D. Associate Professor of Biblical Literature

912 Anderson Street
Currie, Brainerd, (1946) A.B., LL.B., LL.M. Professor of Lazu

Duke University
Curtiss, John Shelton, (1945) A.B., A.M., Ph.D. Associate Professor of History

Duke University

[^57]Cushman, Robert E., (1945) A.B., B.D., Ph.D. Associate Professor of Systematic Theology

2122 Englewood Avenue
Cuyler, W. Kenneth, (1938) B.A., M.A., Ph.D. Research Instructor in Obstetrics and Gynecologic Laboratory Technics

Pickett Road
Dai, Binghani, (1943) A.B., M.A., Ph.D. Lecturer in Psychiatry

1010 Monmouth Avenue
Dann, Willịam John, (1934) B.S., Ph.D. Associate Professor of Physiology and Nutrition

113 Pinecrest Road
Davidson, John Alexander, (1944) A.B., M.D. Instructor in Urology

Duke Hospital
Davis, Gifford, (1930) A.B., A.M., Ph.D. Associate Professor of Romance Languages 2015 Wa Wa Avenue
Davison, Wilburt Cornell, (1927) A.B., B.A., B.Sc., M.A., D.Sc., M.D., LL.D. Professor of Pediatrics and Dean of the School of Medicine Hope Valley
Dees, John Essary, (1939) B.S., M.D. Assistant Professor of Urology 413 Carolina Circle
Dees, Susan Coons, Mrs., (1939) A.B., M.S., M.D. Associate in Pediatrics

413 Carolina Circle
de Guerra, Isabel M., Senora, (1945-1946) B.S., Dra. en fil., Dra. en educ. Visiting Instructor in Romance Languages Faculty Apartments
*Delaplane, Walter Harold, (1934) A.B., A.M., Ph.D. Assistant Professor of Economics

Duke University
de Vyver, Frank Traver, (1935) A.B., A.M., Ph.D. Professor of Economics

8 Sylvan Road
Dick, Macdonald, (1932) B.A., M.A., M.D. Assistant Professor of Physiology and Pharmacology and Associate in Medicine

Hope Valley Road
Dillingham, Marjorie Carter, Mrs., (1941) A.B., M.A. Instructor in Spanish

Mordecai House, East Campus
Dow, Marie, Mme., (1934) L. ès L., M.A. Instructor (Part-time) in French

Duke University
Dow, Neal, (1934) A.B., M.A., Ph.D. Assistant Professor of Romance Languages

Duke University
Dressel, Francts George, (1929) B.S., M.S., Ph.D. Associate Professor of Mathematics 309 Francis Street
Duke, Kenneth Lindsay, (1940) A.B., Ph.D. Associate in Anatomy

701 Club Boulevard
Eadie, George Sharp, (1930) M.A., M.B., Ph.D. Professor of Physiology and Pharmacology

Hope Valley
Eagle, Watt Weems, (1930) A.B., M.D. 804 Anderson Street Associate Professor of Surgery in charge of Otolaryngology
Easley, Eleanor Beamer, Mrs., (1934) B.A., M.A., M.D. Associate in Obstetrics and Gynecology

Guess Road
Easley, Howard, (1930) A.B., M.A., Ph.D. Associate Professor of Education

Guess Road
Egerton, Franklin Nicholas, (1945) A.B., A.M. Visiting Instructor in Electrical Engineering

411 Gregson Street

* Resigned, June 30, 1946.
*Eiteman, Wilford J., (1937) A.B., A.M., Ph.D. Associate Professor of Economics

126 Pinecrest Road
Elliott, William Whitfield, (1925) B.A., M.A., Ph.D.
Professor of Mathematics
707 Morehead Avenue
Ellwood, Charles Abram, (1930) Ph.B., Ph.D., LL.D.
Professor of Sociology, Emeritus
Pinecrest Road
Epperson, Jesse Harrison, (1930) B.S.
Instructor in Preventive Medicine and Public Health 1601 Hermitage Court
Erickson, Cyrus Conrad, (1937) B.S., B.M., M.D. Associate Professor of Pathology

University Apartments
Ervin, Frederick Reid, (March, 1945 -June, 1946) B.S. in M.E. Visiting Instructor in Mechanical Engineering Duke University
Everett, John Wendell, (1932) A.B., Ph.D. Assistant Professor of Anatomy 2605 University Drive
Ferguson, Arthur Bowles, (1939) A.B., Ph.D. Instructor in History

Duke University
Ferguson, George Burton, (1937) M.Sc. (Med.), M.D. Associate in Bronchoscopy

Beverly Apartments
Fitzgerald, William Stone, (1935) A.B., A.M. Instructor in English 3 Powe Apartments, 603 Watts Street
Follis, Richard H., (1945) B.S., M.D. Associate Professor of Pathology

Duke Hospital
Forbus, Wiley Davis, (1930) A.B., M.D. Professor of Pathology Hope Valley
Fox, Herbert Junius, (1940) M.D. Instructor in Medicine Indian Trail
Gardner, Clarence Ellsworth, Jr., (1930) A.B., M.D. Associate Professor of Surgery

Hope Valley
Gardner, William Henry, Jr., (1946) B.S.C.E. Visiting Instructor in Civil Engineering

Duke University
†Garrard, Robert L., (1941) A.B., M.S., B.S., M.D. Instructor in Neuropsychiatry

1000 Hale Street
Gergen, John Jay, (1936) A.B., A.M., Ph.D. Professor of Mathematics

2803 Nation Avenue
Gibson, William Marion, (1934) A.B., A.M., Ph.D. Associate Professor of Political Science

Faculty Apartments
Gilbert, Allan, (1920) B.A., A.M., Ph.D. Professor of English

516 Carolina Circle
$\ddagger$ Gilbert, Katharine Everett, Mrs., (1930) A.B., A.M., Ph.D., Litt.D.
Professor of Philosophy; Chairman, Department of Aesthetics, Art, and Music

516 Carolina Circle
**Gillin, John, (1941) A.B., A.M., Ph.D. Associate Professor of Anthropology

718 Vickers Avenue
Glasson, William Henry, (1902) Ph.B., Ph.D., LL.D. 710 Buchanan Blvd. Professor of Political Economy and Social Science, Emeritus

[^58]Gohdes, Clarence, (1930) A.B., A.M., Ph.D.
Professor of American Literature 2614 Stuart Drive
Goodman, Erastus Genair, Jr., (1940) M.D. Instructor in Medicine

Chapel Hill, N. C.
Goodrich, Virginia S., (1946) A.B., M.A. Instructor in Romance Languages

Duke University
Gordy, Walter, (February 1, 1946) A.B., M.A., Ph.D. Associate Professor of Physics

Duke University
Graham, William Alexander, (1939) A.B., M.D. Instructor in Obstetrics and Gynecology

Beverly Apartments
Grasty, George Mason, (1946) A.B., M.A. Visiting Instructor in German

Duke University
Graves, Robert Williams, (1936) B.S., M.A., M.D. Associate Professor of Neurology

Cornwallis Road
Gray, Irving Emery, (1930) B.S., M.S., Ph.D. Professor of Zoology

124 Pinecrest Road
Greenhill, Maurice H., (1940) A.B., M.D. Associate Professor of Neuropsychiatry

Hope Valley
Grimson, Keith, S., (1942) B.A., B.S., M.D. Assistant Professor of Surgery Hope Valley
Gross, Paul Magnus, (1919) B.S., A.M., Ph.D. William Howell Pegram Professor of Chemistry
Grout, Julia Rebecca, (1924) A.B., M.S.
Hope Valley 207 Jones Street Associate Professor of Physical Education, Woman's College
Hackett, Waltraute Reichenberger, Mrs., (1946) Ph.D. (Univ. of Vienna) Visiting Instructor in Psychology'

Duke University
Haines, Howard N., (1943) B.S. Visiting Instructor in Engineering Drazeing 2307 Club Blvd.
Hall, Frank Gregory, (1926) A.B., A.M., Ph.D. Professor of Physiology

122 Pinecrest Road
Hall, Louise, (1931) B.A., S.B. in Architecture, Brevet d'Art de la Sorbonne Assistant Professor of Fine Arts

210 Faculty Apartments
Hall, Snowden Cowman, (1937) A.B., M.D. Associate in Medicine

Danville, Va.
Hall, William Holland, (1915) A.B., A.M., B.C.E., M.S.C.E. Professor of Engineering and Dean of the College of Engineering

922 Urban Avenue
Hallowell, John Hamilton, (1942) A.B., A.M., Ph.D. Associate Professor of Political Science

804 Fourth Street
Hamblen, Edwin Crowell, (1931) B.S., M.D. Associate Professor of Obstetrics and Gynecology', and Clinical Professor of Endocrinology 810 Forest Hills Blvd.
Hamilton, William Baskerville, Jr., (1936) A.B., A.M., Ph.D. Assistant Professor of History 2256 Cranford Road
Handler, Philip, (1939) B.S., M.S., Ph.D. Assistant Professor of Biochemistry and Nutrition 2813 Legion Avenue
*Hanes, Frederic Moir, (1930) A.B., A.M., M.D.
Florence McAlister Professor of Medicine 2127 Myrtle Drive, West Campus

* Died, March 25, 1946.

Hansen-Prüss, Oscar Carl Edvard, (1930) A.B., M.D. Associate Professor of Medicine in charge of Clinical Microscopy

3 Surry Road, Hope Valley
Hanson, Earl, (1946) A.B., A.M.
Instructor in Political Science
Duke University
Hardy, William Marion, (1946) B.S. in M.E. Visiting Instructor in Mechanical Engineering

Duke University
Hargitt, George Thomas, (1930) Ph.B., A.M., Ph.D., Sc.D. Professor of Zoology

811 Watts Street
Harrar, Elwood Scott, (1936) B.S., M.S., Ph.D. Professor of Wood Technology

2228 Cranford Road
Harris, Jerome Sylvan, (1936) A.B., M.D. Assistant Professor of Pediatrics and Biochemistry Duke Hospital
Hart, Deryl, (1930) A.B., A.M., M.D.
Professor of Surgery Duke University Road and Highway 751
Hart, Hornell Norris, (1938) A.B., M.A., Ph.D. Professor of Sociology

804 Fourth Street
*Harwell, George Corbin, (1935) A.B., A.M., Ph.D. Instructor in English

2016 Sunset Avenue
Hatley, Charles Cleveland, (1917) A.B., A.M., Ph.D. Professor of Physics

708 Buchanan Boulevard
Hatley, Marvin Thomas, Jr., (1946) B.S.E.E. Visiting Instructor in Electrical Engineering

Duke University
Hauser, Charles Roy, (1929) B.S., M.S., Ph.D. Associate Professor of Chemistry

1020 Rose Hill Avenue
Hendrix, James Paisley, (1938) B.S., M.A., M.D. Associate in Medicine

144 Pinecrest Road
Herring, Herbert James, (1924) A.B., A.M. Myrtle Drive, West Campus Assistant Professor in Speech and Dean of Trinity College
Hesser, Frederick Harrison, (1941) A.B., M.D. Instructor in Neurology

2921 Horton Road
Hetherington, Dúncan Charteris, (1930) A.B., M.A., Ph.D., M.D. Professor of Anatomy Hope Valley
Hickman, Franklin Simpson, (1927) A.B., S.T.B., A.M., Ph.D.
Professor of Preaching and the Psychology of Religion, and Dean of the Chapel

823 Buchanan Boulevard
Hickson, Arthur Owen, (1929) A.B., A.M., Ph.D. Assistant Professor of Mathematics

2712 Legion Avenue
Hill, Douglas, (1931) A.B., M.A., Ph.D. Associate Professor of Chemistry Dixon Road
$\dagger$ Hinton, William Arthur, (1942) B.S. in M.E., M.S. in M.E. Assistant Professor of Mechanical Enginecring 2124 Englewood Avenue
Hobbs, Marcus Edwin, (1935) A.B., A.M., Ph.D. Associate Professor of Chemistry

115 Pinecrest Road
Hodge, Gameel Byron, (1942) B.S., M.D.
Instructor in Surgery
University Apartments

[^59]Hollinshead, William Henry, (1930) B.A., M.S., Ph.D. Associate Professor of Anatomy 1008 W. Trinity Avenue
Hollister, William Fredwin, (1945) M.D.
Instructor in Surgery
Duke Hospital
Holton, Holland, (1912) A.B., J.D.
Professor of the History and Science of Education, and Director of the Summer Session

808 Watts Street
Hook, Arnold Evans, (1945) B.S., M.S., Ph.D.
Research Associate in Surgery
Duke Hospital
Hoover, Calvin Bryce, (1925) A.B., Ph.D., Litt.D.
Professor of Economics and Dean of the Graduate School of Arts and Sciences 1702 Duke University Road
Horack, Hugo Claude, (1930) Ph.B., LL.B., LL.D. Professor of Law and Dean of the School of Lawe

2021 Myrtle Drive, West Campus
Horn, Edward C., (March 1, 1946) B.S., A.M., Ph.D. Instructor in Zoology

Duke University
*Hubbell, Jay Broadus, (1927) A.B., A.M., Ph.D. Professor of American Literature

121 Pinecrest Road
Hull, Robert, (1943) B.M., M.M., Ph.D. Assistant Professor of Music

202 Erwin Apartments
Humphrey, Don Dougan, (1945) A.B., Ph.D. Associate Professor of Economics

Duke University
$\dagger$ Irving, William Henry, (1936) B.A., B.A. (Oxon.), M.A., Ph.D.
Professor of English 2707 Legion Avenue
Jeffers, Katherine R., (1937) A.B., A.M., Ph.D. Assistant Professor of Zoology 1507 West Pettigrew Street
Jensen, Howard Eikenberry, (1931) A.B., A.M., B.D., Ph.D. Professor of Sociology

143 Pinecrest Road
Johnson, Mychyle W., (1937) A.B., Ph.D. Assistant Professor of Zoology 2108 Sprunt Street
Johnston, Christopher, (1930) A.B., M.D. Assistant Professor of Medicine

1417 W. Pettigrew Street
Jones, Henry Hunter, (1943) A.B., C.E. Visiting Instructor in Engineering Drawing 1505 Alabama Avenue
Jones, Sara Elizabeth, (1945) A.B., A.M.
Instructor in Zoology Duke University
Jones, Thomas T., (1937) A.B., M.D. Associate in Medicine 1919 Club Boulevard
Jordan, Archibald Currie, (1925) A.B., A.M. Assistant Professor of English Pinecrest Road, Corner U. S. Highway No. 751
Jordan, Brady Rimbey, (1927) Litt.B., Ph.D. Professor of Romance Languages

117 Pinecrest Road
Kaiser, Helen Louise, (1943) R.P.T.T.
Instructor in Physical Therapy, in charge of Division of
Physical Therapy

* Absent on sabbatical leave, second semester, 1945-1946.
$\dagger$ Absent on sabbatical leave, 1946-47.

Kelly, James Gerald, (1946) B.S.
Visiting Instructor in Mechanical Engineering 2304 University Drive
*Kemp, Edward H., (1940) A.B., Ph.D.
Assistant Professor of Psychology 1403 Oakland Avenue
Kempner, Walter, (1934) M.D.
Assistant Professor of Medicine 1505 Virginia Avenue
Kenyon, Van Leslie, Jr., (1945) B.S.
Visiting Assistant Professor of Mechanical Engineering Duke University
Kliger, Samuel, (1946) A.B., M.A., Ph.D. Instructor in English 909 Markham Avenue
Koch, Sigmund, (1942) A.B., A.M., Ph.D. Assistant Professor of Psychology 2909 Horton Road
Korstian, Clarence Ferdinand, (1930) B.S.F., M.F., M.Ȧ., Ph.D. Professor of Silviculture and Dean of the School of Forestry.

1718 Duke University Road
Kowalzyк, Alexander Martin, Jr., (1945) B.S., Captain, U. S. Navy Professor of Naval Science and Tactics

2101 Myrtle Drive
Kramer, Paul Jackson, (1931) A.B., M.Sc., Ph.D. Professor of Botany

2251 Cranford Road
Kraybill, Edward K., (1939) B.S. in E.E. Assistant Professor of Electrical Engineering 900 Dacian Avenue
Krummel, Charles Albert, (1922) Ph.B., Ph.M., Ph.D.
Professor of German
2118 Englewood Avenue
Kuhn, Beatrice Hart, Mrs., (1944) B.A., M.D. Instructor in Dermatology and Syphilology University Apartments
La Barre, Weston, (1946) A.B., Ph.D. Assistant Professor of Authropology 1311 Alabama Avenue
Laidlaw, George Norman, (1945) A.B., M.A. Visiting Assistant Professor of Romance Languages 2208 Pershing Street
Landon, Charles Edward, (1926) A.B., A.M., Ph.D. Associate Professor of Economics 1517 Edgevale Road
Lanning, John Tate, (1927) A.B., A.M., Ph.D. Professor of History

Hope Valley
Laprade, William Thomas, (1909) A.B., Ph.D. Professor of History

1108 Monmouth Avenue
LaRoe, Rachel, (1946) A.B., M.A. Instructor in Physics
Larsh, John E., Jr., (1943) A.B., M.S., Sc.D. Associate in Parasitology

Duke Hospital
Latty, Elvin Remus, (1937) B.S., J.D., J.Sc.D. Professor of Law

Hope Valley
Leary, Lewis, (1941) B.S., A.M., Ph.D. Associate Professor of American Literature 1503 Alabama Avenue
†Leighton, Clare, (1943) D.F.A. Visiting Lecturer on Art Hope Valley Road
Lemert, Ben Franklin, (1930) B.Sc. in Bus. Admin., M.A., Ph.D. Associate Professor of Economic Geography 123 Pinecrest Road

[^60]*Leonard, Henry Siggins, (1937) A.B., A.M., Ph.D. Associate Professor of Philosophy

107 Pinecrest Road
Lewis, Modena, (1933) B.S., M.A.
305 Erwin Apartments
Assistant Professor of Physical Education and Dance
Lewis, Ralph Elton, (1941) B.S., M.S. in M.E.
Assistant Professor of Mechanical Engineering 1308 Markham Avenue
$\dagger$ Linebarger, Paul Myron Anthony, (1937) A.B., M.A., Ph.D.
Associate Professor of Political Science 1502 Bivins Street
$\dagger$ Lítlee, Lillian H., (1944) B.S., M.A.
Instructor in Physical Education
801 Third Street
Löwenbach, Hans, (1940) M.D.
1017 Gloria Avenue Associate Professor of Neuropsychiatry and Physiology
London, Arthur Hill, Jr., (1932) B.S., M.D. Associate in Pediatrics Corner Shepherd and Wells Streets
London, Fritz, (1938) Ph.D., Docteur ès Sciences of the University of Paris Professor of Theoretical Chemistry

1508 Oakland Avenue
Long, John William, (July, 1945-June 30,1946 ) A.B., A.M. Visiting Instructor in History

Duke University
Lowndes, Charles Lucien Baker, (1934) A.B., LL.B., S.J.D. Professor of Law 2016 Club Boulevard
Lugn, Alvin Leonard, Jr., (1945) B.S., Ensign, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics

1010 Knox Street
Lundeberg, Olav K., (1931) A.B., A.M., Ph.D. Professor of Romance Languages 127 Pinecrest Road
$\ddagger$ Lundholm, Helge, (1930) Fil. Kand., Fil. Lic., Ph.D. Professor of Psychology

803 Second Street
Lyman, Richard Sherman, (1940) B.A., M.D. Professor of Neuropsychiatry

812 Anderson Street
McBryde, Angus, (1931) B.S., M.D. Assistant Professor of Pediatrics 410 Forest Hills Blvd., East
McCain, Paul Pressly, (1931) A.B., M.D., LL.D. Assistant Professor of Medicine Southern Pines, N. C.
McColl, Jean E., (1946) B.S. Instructor in Physical Education Duke University
McCracken, Maude, (1941) A.B., M.S. Instructor in Medical Social Service 907 N. Mangum Street
McCrea, Forrest Draper, (1930) B.S., M.S., Ph.D. Associate Professor of Physiology and Pharmacology 1023 Demerius Street
McDermott, Malcolm, (1930) A.B., Ll.B. Professor of Law

East Campus
McHugh, Gelolo, (1946) A.B., A.M., Plı.D. Assistant Professor of Psychology' Duke University
$\dagger$ McKee, Mary Ellen, (1944) B.S. Instructor in Physical Education

McLarty, Furman Gordon, (1933) A.B., B.A., A.M., Ph.D. Assistant Professor of Philosophy

Hillsboro, N. C.
*Magalhaes, Hulda, (1943) B.S., A.M., Ph.D. Instructor in Zoology

Faculty Apartments
Maggs, Douglas Blount, (1930) A.B., J.D., S.J.D. Professor of Law

Hope Valley
Malone, Thomas Patrick, (1946) A.B. Instructor in Psychology

Duke University
Manchester, Alan Krebs, (1929) A.B., A.M., Ph.D. Associate Professor of History and Dean of Freshmen

Myrtle Drive, West Campus
Manning, Isaac Hall, Jr., (1939) A.B., M.D.
Associate in Medicine
2311 Wilson Street
Markee, Joseph Eldridge, (1943) B.S., Ph.D. Professor of Anatomy

512 Jackson Street
Martin, Donald Stover, (1932) A.B., M.D. 2208 Pershing Street Associate Professor of Bacteriology and Associate in Medicine
Martin, Elsie W., Mrs., (1930) A.B., M.S.
Professor of Dietetics 206 Faculty Apartments, East Campus
Martin, Ruth Campbell, (1944) B.A., M.D. Associate in Anesthesiology

Duke Hospital
Maughan, William, (1931) B.S., M.F. Professor of Forest Management 5 Sylvan Road
Maxwell, William Carey, (1930) A.B., A.M., Ph.D. Assistant Professor of German

142 Pinecrest Road
$\dagger$ Meier, Otto, Jr., (1934) B.S. in E.E., M.S., E.E. Associate Professor of Electrical Engineering
Menefee, Elijah Eugene, Jr., (1940) B.S., M.D. Associate in Medicine

916 Monmouth Avenue Menkin, Valy, (1944) B.S., A.M., M.D. Assistant Professor of Pathology

2314 Woodrow Street

Mickey, Harold Chandler, (1936) B.A. Associate in Hospital Administration

University Apartments
2223 Cranford Road
Mitchell, Frank Kirby, (1926) A.B., A.M. Associate Professor of English

East Campus
Morgan, Ralph Pierpont, Jr., (1946) B.S.M.E. Visiting Instructor in Mechanical Engineering

Duke University
Mueller, Earl George, (1945) B.M., A.M., M.F.A. Instructor in Aesthetics, Art, and Music

203 Northwood Circle
Muffley, Bernard William, (1944) B.A., M.A., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 2422 Acadia Street
Myers, Hiram Earl, (1926) A.B., S.T.B., S.T.M. Professor of Biblical Literature

141 Pinecrest Road
Nahm, Helen, (1946) R.N., A.B., M.S. Professor of Nursing Education

Duke Hospital

* Resigned, June 30, 1946.
$\dagger$ Absent on sabbatical leave, 1946-47.

Neale, William McCormick, (1945) B.E., M.E. Visiting Instructor in Mechanical Engineering until February 28, 1946
Negley, Glenn, (1946) Ph.D. Professor of Philosophy

921 Monmouth Avenue

Nelson, Ernest William, (1926) A.B., A.M., Ph.D. Associate Professor of History

909 North Gregson Street
Neurath, Hans, (1938) Ph.D.
Associate Professor of Biochemistry 2505 Club Boulevard
Nichols, Madaline W., (1945-46) A.B., A.M., Ph.D. Visiting Assistant Professor of Spanish and History

1507 W. Pettigrew Street
Nicholson, William McNeal, (1935) A.B., M.D. Assistant Professor of Medicine

812 Anderson Street
Nielsen, Walter McKinley, (1925) B.S. in E.E., Ph.D.
Professor of Physics
139 Pinecrest Road
*Nordheim, Lothar Wolfgang, (1937) Ph.D. Professor of Physics

2555 Cranford Road
Norfleet, Grizzelle M., (1938) A.B., B.S., M.A. Supervisor of the Spastic Clinic

Fifth Street
Odum, Guy Leary, (1943) M.D. Assistant Professor of Neurosurgery

Hope Valley Road
O'Leary, James J., (1946) A.B., M.A., Ph.D. Associate Professor of Economics

Duke University
Oosting, Henry John, (1932) A.B., M.S., Ph.D. Associate Professor of Botany 2642 University Drive, Rockwood
Orgain, Edward Stewart, (1934) M.D. Assistant Professor of Medicine Hope Valley
Ormond, Jesse Marvin, (1923) A.B., B.D., D.D. Professor of Practical Theology

110 Pinecrest Road
Palmer, Aubrey E., (1944) B.S.E., C.E. Assistant Professor in Civil Engineering 103 Turrentine Street
Parker, Harold Talbot, (1939) A.B., Ph.D. Assistant Professor of History

Duke University
Patterson, Karl. Bachman, (1920) A.B., A.M. Assistant Professor of Mathematics

1024 Monmouth Avenue
Patterson, Robert Leet, (1945) A.B., A.M., B.D., Ph.D. Professor of Philosophy'

Duke University
Patton, Lewis, (1926) A.B., Ph.D. Associate Professor of English

614 Swift Avenue
Pearse, Arthur Sperry, (1926) B.S., A.M., Ph.D., LL.D. Professor of Zoology Chelsea Circle, Hope Valley
Peele, Talmage Lee, (1939) A.B., M.D. Assistant Professor of Anatomy

University Apartments
Pence, Orville Leon, (1945) B.A., M.A., Lieutenant Commander, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics

2415 State Street

* Absent on leave, Government Service, 1946-47.

Perlzweig, William Alexander, (1930) B.S., A.M., Ph.D. Professor of Biochemistry

Hope Valley
Perry, Harold Sanford, (1932) A.B., Ph.D. Associate Professor of Botany

2302 Cranford Road
Persons, Elbert Lapsley, (1930) A.B., M.D Assistant Professor of Medicine

723 Anderson Street
Petry, Ray C., (1937) A.B., A.M., Ph.D. Professor of Church History

128 Pinecrest Road
Pickrell, Kenneth LeRoy, (1943) M.D. Associate in Surgery

3 Sylvan Road
Pinkerton, Margaret Isabel, (1939) B.S., R.N. Professor of Nursing Education and Dean of the School of Nursing

412 Swift Avenue
Poston, Mary Alverta, (1930) A.M. Instructor in Bacteriology

512 Watts Street
*Poteat, James Douglass, (1936) A.B., LL.B., J.S.D. Professor of Law

1106 Watts Street
Poteat, Mary, (1935) A.B., A.M., Ph.D. Assistant Professor of English

103 Faculty Apartments
Predmore, Richard Lionel, (July 1, 1945-June 30, 1946) A.B., M.A., D.M.L. Visiting Assistant Professor of Romance Languages 1322 Arnette Avenue
Proctor, Arthur Marcus, (1923) A.B., A.M., Ph.D. Professor of Education Myrtle Drive, West Campus
Quynn, Dorothy Mackay, Mrs., (1930) A.B., A.M., Docteur de l’Université de Paris Assistant Professor of History Woodridge Drive, Rockwood
Quynn, William Rogers, (1930) B.A., M.A., Ph.D. Assistant Professor of Romance Languages Woodridge Drive, Rockwood
Raney, Richard Beverly, (1934) A.B., M.D. Associate in Orthopaedics

1110 Shepherd Street
Rankin, Robert Stanley, (1927) A.B., A.M., Ph.D. Professor of Political Science

1107 Knox Street
Rankin, William Walter, Jr., (1926) B.E., M.A. Professor of Mathematics

1011 Gloria Avenue
Ratchford, Benjamin Ulysses, (1928) B.S., A.M., Ph.D. Professor of Economics

133 Pinecrest Road
Raymond, Mary Lois, (1931) A.B., M.A. Assistant Professor of Romance Languages 1003 Lamond Avenue
Reamer, I. Thomas, (1931) Ph.G. Instructor in Pharmacy University Apartments
Reed, Frederick Jerome, (1935) M.E., M.S. Associate Professor of Mechanical Engineering 2203 Englewood Avenue
Reeves, Robert James, (1930) A.B., M.D. Clinical Professor of Radiology

Anderson Street
$\dagger$ Reid, John Turner, (1939) A.B., A.M., Ph.D. Assistant Professor of Romance Languages

Duke University
Reynolds, Thomas Davies, (November 1, 1945-June 30, 1946) A.B., A.M. Visiting Instructor in Mathematics Duke University

[^61]$\dagger$ Resigned, January 5, 1946.

Rhine, Joseph Banks, (1927) B.S., M.S., Ph.D. Professor of Psychology

908 W. Club Boulevard
Richards, Claude Henry, (1946) A.B., A.M., Ph.D. Assistant Professor of Political Science

Duke University
Roalfe, William Robert, (1930) LL.B. Professor of Law
Robbins, J. Albert, Jr., (1946) B.A., M.A., Ph.D. Instructor in English

1208 Glendale Avenue
Duke University
Robert, Joseph Clarke, (1938) A.B., A.M., Ph.D. Associate Professor of History

1102 B Street
Roberts, John H., (1931) A.B., Ph.D. Professor of Mathematics

2813 Legion Avenue
Roberts, Louis Carroll, (1933) B.S., M.D. Instructor in Urology

2028 Sunset Avenue
Rogers, Robert S., (1937) A.B., A.M., Ph.D., F.A.A.R. Professor of Latin

148 Pinecrest Road
Ropp, Theodore, (1938) A.B., A.M., Ph.D. Assistant Professor of History

302 Woodridge Drive
Rose, Jesse Lee, (1936) A.B., M.A., Ph.D. Assistant Professor of Latin and Greek

603 Watts Street
Ross, Norman F., (1937) D.D.S. Instructor in Dentistry Chelsea Circle, Hope Valley
Ross, Robert Alexander, (1930) B.S., M.D. Associate Professor of Obstetrics and Gynecology 818 Anderson Street
Rowe, Gilbert Theodore, (1928) A.B., S.T.D., D.D., Litt.D. Professor of Christian Doctrine 150 Pinecrest Road
Rucker, Marvin Pierce, (1941) A.M., M.D., LL.D. Lecturer in Obstetrics and Gynecology

Richmond, Va.
Rudin, John J., II, (1945) A.B., M.A. Instructor in Speech 606 Buchanan Boulevard
Ruffin, Julian Meade, (1930) A.B., M.A., M.D. Associate Professor of Medicine

816 Anderson Street
Rulfs, Donald J., (November 1, 1945-June 30, 1946) A.B., M.A., Ph.D. Visiting Instructor in English

Duke University
Rundles, Ralph Wayne, (1945) A.B., Ph.D., M.D. Associate in Medicine

132 Pinecrest Road
Russell, Elbert, (1926) A.B., A.M., Ph.D., Litt.D. Professor of Biblical Interpretation and Dean Emeritus of the Divinity School

804 Fourth Street
*Sanders, C. Richard, (1937) B.Ph., M.A., Ph.D. Associate Professor of English

921 Monmouth Avenue
Sanders, Paul Hampton, (1936) A.B., LL.B. Professor of Law

1006 North Street
Saville, Lloyd, (1946) A.B., M.A. Assistant Professor of Economics

Duke University
Saivyer, Charles Henry, (1944) A.B., Ph.D. Assistant Professor of Anatomy

[^62]Saylor, John Henry, (1928) A.B., A.M., Ph.D. Professor of Chemistry

707 Club Boulevard
*Scates, Douglas Edgar, (1939) A.B., Ph.D. Professor of Education

2247 Cranford Road
Schettler, Clarence Henry, (September 1, 1946) A.B., A.M., Ph.D. Associate Professor of Sociology

2162 Guess Road
Schiebel, Herman Max, (1939) A.B., M.D. Instructor in Surgery

1410 Pennsylvania Avenue
Schlayer, Clotilde, (1937) Ph.D. Research Associate in Medicine

1503 Virginia Avenue
Schumacher, Francis X., (1937) B.S. Professor of Forestry

6 Sylvan Road
Sears, Gerald W., (1946) B.S., Ph.D. Research Associate in Physics

Duke University
Sears, Roy Blackburn, (1945) B.S., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 108 West Seeman Street
Seeley, Walter James, (1925) E.E., M.S. Professor of Electrical Engineering 1005 Urban Avenue
Sharp, D. Gordon, (1939) B.S., M.A., Ph.D. Research Associate in Surgery

202 Francis Street
Duke University
Shears, Lambert Armour, (1927) A.B., A.M., Ph.D. Assistant Professor of German

917 Green Street
Shepherd, Harold, (1939) A.B., J.D. Professor of Law

Cole Mill Road
Sherman, Robert Park, (1945) A.B., Lieutenant, U. S. Naval Reserve Assistant Professor of Naval Science and Tactics 1000 Lamond Avenue
Shields, John Herman, (1926) A.B., A.M. Assistant Professor of Accounting

1315 Vickers Avenue
$\dagger$ Shipman, George A., (1938) A.B., Ph.D. Associate Professor of Political Science Duke University
Simpson, William Hays, (1930) A.B., A.M., Ph.D. Assistant Professor of Political Science

1408 Dollar Avenue
Sledd, JAmes H., (1946) B.A., Ph.D. (to be conferred in September, 1946) Assistant Professor of English

Duke University
Smith, Alexander G., (March 1, 1946) B.S. Visiting Instructor in Physics

Duke University
Smith, Burke, (1946) A.B., M.A. Instructor in Psychology 2419 Shenandoah Avenue
Smith, David Tillerson, (1930) A.B. M.D. Hope Valley Professor of Bacteriology and Associate Professor of Medicine
Smith, George August, (1945) A.B., Lieutenant Commander, U. S. Naval Reserve. Assistant Professor of Naval Science and Tactics Duke University
Smith, Hilrie Shelton, (1931) A.B., Ph.D., D.D., Litt.D. Professor of American Religious Thought 1523 Hermitage Court * Absent on leave, first semester, 1946-47. $\dagger$ Resigned, June 30, 1946.

Smith, O. Norris, (1937) B.A., M.D. Associate in Medicine

Greensboro, N. C.
Smith, Robert Sidney, (1932) A.B., A.M., Ph.D. Associate Professor of Economics

2236 Cranford Road
Smith, Ruth Slack, Mrs., (1927) A.B., A.M. Instructor in Education and Associate Dean of Undergraduate Instruction, Woman's College Faculty Apartments, East Campus
Smith, Susan Gower, Mrs., (1930) A.B., M.A. Associate in Medicine Hope Valley
Smith, William V., (1946) B.S., Ph.D. Assistant Professor of Physics

2555 Cranford Road
Snively, Mary Helen, (1930) R.N., Anes. Associate in Anesthesia

2913 Horton Road
Snyder, Mac Edison, (1945) A.B., Lieutenant, U. S. Naval Reserve Assistant Professor of Nazal Science and Tactics

1603 Duke University Road
Spence, Bessie Whitted, Mrs., (1929) A.B., A.Mi., B.D. Instructor in Biblical Literature

Hope Valley
Spence, Hersey Everett, (1918) A.B., A.M., B.D., D.D., Litt.D.
Professor of Biblical Literature and Religious Education Hope Valley
Spencer, Lee Donald, (1946) B.S.M.E. Visiting Instructor in Mechanical Engineering Duke University
Spengler, Joseph John, (1934) A.B., M.A., Ph.D. Professor of Economics

2240 Cranford Road
Spiro, Benjamin, (1946) B.S., M.P.S., D.P.S. Visiting Assistant Professor of Economics Duke University
Sponer, Hertha, (1935) Ph.D. Professor of Physics Hope Valley
Springer, John Young, (1936) A.B., M.B.A. Associate Professor of Economics

Duke University
Staliey, James Bentamin, (November 1, 1945-June 30, 1946) A.B., M.A. Visiting Instructor in Political Science Duke University
Stevens, Joseph Blackburn, (1940) B.S., M.D. Associate in Medicine

Duke Hospital
Stewart, Paul Dekker, (1946) A.B., A.M. Visiting Instructor in Political Science, Duke University March 1 to June 30, 1946, Semester
Still, Bayrd, (1938) A.B., A.M., Ph.D. Assistant Professor of History Duke University
Stinespring, William Franklin, (1936) B.A., M.A., Ph.D. Professor of Old Testament

1107 Watts Street
Stocker, Frederick W., (1943) M.D. Assistant Professor of Ophthalmology Bland Apartments
Sturm, Albert Lee, Jr., (March 1, 1946-June 30, 1946) A.B., A.M., Ph.D. Visiting Assistant Professor of Political Science Duke University
Sugden, Herbert Wilfred, (1929) A.B., A.M., Ph.D. Assistant Professor of English

University Apartments

Suitt, Robert Burke, (1940) M.D.
Associate in Neuropsychiatry
1311 Dollar Avenue
Sunderland, Elizabeth Read, (1939-42, 1943) A.B., A.M., Ph.D.
Assistant Professor of Art
Faculty Apartments
Swain, Hall, (November 1, 1945-June 30, 1946) A.B., A.M.
Visiting Instructor in English
Duke University
Swasey, Martha G., Mrs., (1946) B.A., M.A.
Instructor in Physical Education
Duke University
*Sydnor, Charles Sackett, (1936) A.B., Ph.D. Professor of History

116 Pinecrest Road
Talbert, Ernest William, (1942) A.B., M.A., Ph.D.
Associate Professor of English 2607½ Chapel Hill Road
Taylor, Alton Robert, (1939) B.S., Ph.D.
Research Associate in Surgery
2117 Club Boulevard
Taylor, Harvey Grant, (1945) A.B., A.M., M.D.
Assistant Professor of Pediatrics
Duke Hospital
Taylor, Haywood Maurice, (1930) B.S., M.S., Ph.D.
Associate Professor of Biochemistry and Toxicology
University Drive, Rockwood
$\dagger$ Theiss, Ernest S., (1939) B.S. in M.E., M.S.
Assistant Professor of Mechanical Engineering 2645 University Drive
Thomas, Joseph Miller, (1930) A.B., Ph.D. Professor of Mathematics

2215 Cranford Road
Thomas, Walter Lee, Jr., (1932) A.B., M.A., M.D.
Assistant Professor of Obstetrics and Gynecology 415 Carolina Circle
$\ddagger$ Thompson, Edgar Tristram, (1935) A.B, A.M., Ph.D.
Professor of Sociology
138 Pinecrest Road
Thomson, Roy Bertrand, (1938) B.S., M.F., Ph.D.
Associate Professor of Forest Economics
2243 Cranford Road
**Trent, Josiah Charles, (1939) A.B., M.D. Instructor in Surgery

1015 Demerius Street
Truesdale, James N., (1930) A.B., A.M., Ph.D. Assistant Professor of Greek Duke University
Turtle, Lewis, (1945) B.S.
$V$ Visiting Instructor in Engineering Drazeing, Duke University November, 1945, to March, 1946, Semester
***Vail, Charles Rowe, (1939) B.S. in E.E. Assistant Professor of Electrical Engineering

1001 Watts Street
Valle, Anita, (1946) B.A., M.A.
Instructor in Romance Languages
Duke University
$\dagger$ Vance, Mary Hendren, Mrs., (1926) A.B., A.M. Assistant Professor of English

208 Watts Street
$\dagger$ Van Alstyne, Dorothy, (1942) A.B., A.M., Ph.D. Faculty Apartments Visiting Assistant Professor in Education and Psychology

[^63]*Van Dusen, Albert Edward, (1941) B.A., M.A. Visiting Instructor in History

2807 Hillsboro Road
Van Tuyl, Janice, (1944) B.S. Instructor in Physical Education 203 Faculty Apartments
†Van Voorhis, Robert Henry, (1941) A.B., A.Mi., Ph.D. Instructor in Economics

1002 Wells Street
Vollmer, Clement, (1926) A.B., A.M., Ph.D.
Professor of German 2114 Myrtle Drive, West Campus
von Beckerath, Herbert, (1935) Ph.D.
Professor of Economics and Political Science Hope Valley
Vosburgh, Warren Chase, (1928) B.S., M.S., Ph.D. Professor of Chenistry

2319 Englewood Avenue
Wackerman, Albert Edward, (1938) B.S., M.F.
Professor of Forest Utilization Dover Road, Hope Valley
Wade, Luther Irwin, (1943) A.B., Ph.D. Assistant Professor of Mathematics

2418 Banner Street
Wade, Wallace, (1931) A.B.
Head Coach of Football, Trinity College Myrtle Drive, West Campus
Walker, Calvin Alexander, Jr., (1945) B.S., Lieutenant Commander, U. S. Navy (Ret.) Associate Professor of Naval Science and Tactics Chapel Hill, N. C.
Walker, Charlotte Frisch, Mrs., (1941) M.D. Associate in Neuropsychiatry

2121 W. Pettigrew Street
Walter, David Osivell, (1942) A.B., A.M., Ph.D., J.D. Visiting Assistant Professor of Political Science; 2806 Legion Avenue Lecturer on Labor Lazv, September, 1942, to February 28, 1945
Walton, Loring Baker, (1929) A.B., Lic. ès L., Ph.D. Associate Professor of Romance Languages
$\ddagger$ Ward, Charles Eugene, (1927) A.B., A.M., Ph.D. Associate Professor of English

Guess Road
Ward, Margaret Chapman, (1946) B.A., Ph.D. Instructor in Zoology

Duke University
Warren, John R., (1946) A.B., M.S. Instructor in Botany

Duke University
Waters, Luther Bradford, Jr., (1944) B.A., M.D. Instructor in Radiology University Apartments
**Watson, Karl Brantley, (1936) B.S., A.B., A.M., Ph.D. Assistant Professor of Education

1101 Virginia Avenue
Watson, Richard L., Jr., (1939) A.B., Ph.D. Instructor in History

Duke University
Way, Vernon Elgin, (1930) A.B., A.M., M.A. Assistant Professor of Greek

1102 Englewood Avenue
Webb, Albert Micajah, (1903) A.B., A.M. Professor of Romance Languages

1017 Trinity Avenue

* Resigned, June 30, 1946.
$\dagger$ Resigned, February 1, 1946.
$\ddagger$ Absent on sabbatical leave, 1946-47.
** Absent on leave, 1946-47.

Weeks, Margaret, (1942) B.S., M.A. Instructor in Physical Education

Erwin Apartments
Weisflock, Mayo Dean, (1945) B.A., Lieutenant, U. S. Naval Reserve
Assistant Professor of Naval Science and Tactics 1020 Wells Street
Welfling, Weldon, (1936) A.B., A.M., Ph.D.
Associate Professor of Economics Pickett Road
West, Alfred Thurber, (1930) B.S., A.M.
Associate Professor of English
1112 Georgia Avenue
Wharton, George Willard, Jr., (1939) B.S., Ph.D.
Assistant Professor of Zoology 1420 Pennsylvania Avenue
White, Marie Anne, Mrs., (1930) A.B., A.M.
Assistant Professor of English
1003 Lamond Avenue
White, Newman Ivey, (1919) A.B., A.M., Ph.D. Professor of English

1003 Lamond Avenue
Whiting, Laurence E., (1946) B.A., M.A., Ph.D. Assistant Professor of English

1010 Gloria Avenue
Widgery, Alban Gregory, (1930) B.A., M.A. Professor of Philosophy

St. Catherine, Pinecrest Road
Wilbur, Karl Milton, (1946) A.B., A.M., Ph.D. Associate Professor of Zoology Duke University
Wilbur, Ralph Sydney, (1933) B.S. in M.E., M.E. Professor of Mechanical Engineering

1018 Demerius Street
Wilder, Francis S., (1946) A.B., M.A., Ph.D. Visiting Assistant Professor of Economics

Duke University
Williams, James Wesley, (1937) A.B., B.S. in C.E. Assistant Professor of Civil Engineering

206 Swift Avenue
Wilson, Frederick Eliphaz, (1923) A.B., A.M. Associate Professor of German

1020 Demerius Street
*Wilson, John Woodrow, (1940) B.S., Ph.D. Instructor in Zoology

1004 Monmouth Avenue
Wilson, Robert North, (1910) A.B., M.S. Professor of Chemistry

822 Third Street
$\dagger$ Wilson, Robert Renbert, (1925) A.B., A.M., Ph.D., LL.D. Professor of Political Science 717 Anderson Street
Wolf, Frederick Adolph us, (1927) A.B., A.M., Ph.D. Professor of Botany

924 Urban Avenue
Woodhall, Barnes, (1937) A.B., M.D. Associate Professor of Surgery in charge of Neurosurgery Cole Mill Road
$\ddagger$ Woody, Robert Hilliard, (1929) Ph.B., A.M., Ph.D. Associate Professor of History

2648 University Drive
Young, Edward Hudson, (1923) A.B., A.M. Assistant Professor of Romance Languages

10 Beverly Apartments
Young, Franklin Woodrow, (1945) A.B., B.D., Ph.D. Instructor in Biblical Literature

1006 Demerius Street
Zener, Karl Edward, (1928) Ph.B., A.M., Ph.D.
Professor of Psychology
Sparger Road

* On active duty, U. S. Army.
$\dagger$ Absent on leave Government Service, 1945.1946.
$\ddagger$ Absent on sabbatical leave, 1946-47.

Amore, Salvatore Thomas, (January 1, 1946) A.B., A.M., Ph.D.
Instructor (Part-time) in Chemistry Duke University
Batchelder, Marion Frances, (1939) R.N. Instructor in Nursing Administration and Superzision Duke Hospital
Bevington, Helen Smith, Mrs., (1943) Ph.B., M.A. Instructor (Part-time) in English

2608 Nation Avenue
Black, Julian, (1946) A.B. Instructor (Part-time) in Accounting

Duke University
Breslow, David Samuel, (1944) B.S., Ph.D. Instructor (Part-time) in Chemistry Duke University
Bryan, William Alfred, (1944) A.B., A.M. Instructor (Part-time) in English, March 1, 1944, Duke University to February 28, 1945
Bryson, Edivin Constant, (1942) LL.B. Instructor (Part-time) in Economics, July 1, 1943, to October 31, 1944; November 1, 1945, to June 30, 1946
Cox, Robert Boyd, (March 1, 1945-April 30, 1946) A.B., A.M. Instructor (Part-time) in English

Duke University
Dillingham, William Pyrle, (1945) B.A.E., M.S. Instructor (Part-time) in Economics Mordecai House, East Campus
Gale, William J., (1946) B.S. Instructor (Part-time) in Education Duke University

Hester, William, (1945) A.M. Instructor (Part-time) in Philosophy, November 1, 1945, Duke University to February 28, 1946, Semester
Manes, Milton, (1944) B.S. Instructor (Part-time) in Chemistry Duke University
Mueller, Julia W., (1946) B.M., M.A. 203 Northwood Circle Instructor (Part-time) in Aesthetics, Art, and Misic
*Slay, James Matthew, (1945) A.B., A.M. Instructor (Part-time) in Romance Languages

Duke University
Sowder, Ellie Mae, (1946) A.B., M.A. Instructor (Part-time) in Mathematics

Duke University
Weith, A. James, (1941) A.B., A.M. Instructor (Part-time) in Chemistry Duke University
Wesson, W. H., Jr., (1946) B.S. Instructor (Part-time) in Economics Duke University
Wood, Virginia Loraine, (1945) A.B., M.A. Instructor (Part-time) in Political Science Duke University

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Duke Hospital
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Assistant in Neuropsychiatry Duke Hospital
Bestebreurtje, Annie M., (1945) M.D.
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Duke Hospital
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Assistant in Otolaryngology and Ophthalmology
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Assistant in Surgery
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Donegan, Charles Kendall, (1944) M.D. Assistant in Medicine

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$\dagger$ Resigned, January $18,1946$. $\ddagger$ Resigned, June 13, 1946.

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*Wilkerson, Mrs. Luther C. Assistant, Order Section, and Assistant Secretary to the Acting Librarian

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Librarian in charge, Physics-Mathematics Library 1113 N. Duke Street
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## divinity school library

Ehlhardt, George Brinkmann, A.B., B.D. Librarian
woman's college library
Griggs, Mrs. Lillian Baker, B.A. in L.S. Librarian

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403 Watts Street
Hicks, Mrs. Spears, A.B., A.B. in L.S. Reference Librarian

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Lockhart, Mrs. Florence G., A.B. Assistant, Catalogue Department

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Morris, Mrs. Bess Horton Assistant, Reference Department

510 Buchanan Boulevard
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Shirey, Mrs. Helen Assistant, Circulation Department 604 Cleveland Street
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Tysinger, Catherine Victoria, A.B., B.S. in L.S. Cataloguer

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LaW LIbrary
Roalfe, William Robert, LL.B. Librarian

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East Duke Campus

* Resigned, June 30, 1946.
$\dagger$ Resigned, June 1, 1946.

Day, Katherine, B.S. Assistant Cataloguer

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Long, Marianna, A.B., B.S. in L.S.
Head Cataloguer
403 Watts Street

## medical school library

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Librarian
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## UNIVERSITY CHAPEL-RELIGIOUS ACTIVITIES

Hickman, Franklin Simpson, A.B., A.M., S.T.B., Ph.D.
Dean of the Chapel
823 Buchanan Boulevard
Barnes, James Foster, A.B., A.M.
Director of Choral Music
2401 Cranford Road
Brees, Anton
University Carillonneur
Duke University
Hendrix, Mildred Little, Mrs., B.S. University Organist

144 Pinecrest Road
DuBose, Robert Newsome, A.B., B.D.
Director of Student Religious Activities
Cranford Road
Sampley, Ethelene
Duke University
Director of Student Religious Activities, Woman's College

## PHYSICAL EDUCATION AND STUDENT HEALTH

Cameron, Edmund McCullough, (1926) A.B. Hope Valley Director of Physical Education and Athletics, West Campus
Hill, Dan Winfield, A.B.
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Grout, Julia Rebecca, A.B., M.S.
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205 Jones Street
*Speed, Joseph Anderson, M.D. Director of Student Health

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Persons, Elbert Lapsley, (1946) A.M., M.D.
Director of Student Health
723 Anderson Street
Smith, Erma Anita, (1946) A.B., M.A., Ph.D., M.D.
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*Page, Wray Ramsey, Mrs., R.N.
Resident Nurse
East Campus Infirmary
Vestal, Mozelle, R.N.
Resident Nurse
East Campus Infirmary
ORGANIZATIONS-MUSIC AND ART
Barnes, James Foster, A.B., A.M.
Director of Men's Glee Club
2401 Cranford Road
Barnes, Mrs. James Foster
Director of Women's Glee Club
2401 Cranford Road

* Resigned, June 30, 1946.

Bone, Allan H., B.A., M.M. Director of College Band

308 Greenwood Drive
Gatling, Eva, B.A., M.A.
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Hull, Robert, B.M., M.M., Ph.D.
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202 Erwin Apartments

## RESIDENCE

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Schrader, Mrs. Arline Ditlevson, A.B., A.M.
Assistant to Dean of Residence; Counselor, Southgate Southgate
Pemberton, Mrs. Mary Norcutt Hostess, West Campus West Campus Union
Barnes, Evelyn, B.S. Cornselor, Alspaugh House Alspaugh House
Dale, Dorothy J., A.B. Counselor, Bassett House

Bassett House
DeArmond, Genevieve, A.B., A.M. Counselor, Pegram House
Grimsley, Mrs. Corinne, A.B., A.M. Counselor, Aycock House Pegram House
*Patton, Dorothy, A.B. Counselor, Browen House Brown House
Taylor, Mrs. Harriet Counselor, Giles House
Wellborn, Mary Moss, A.B. Counselor, Jarvis House
Whitaker, Mrs. Frances M., A.B., A.M.
Counselor, Brozen House
Aycock House

Giles House
Jarvis House
Brown House
Bethie, Lucille, B.S.
Manager, the Union, East Campus Duke University
Howe, Isabelle, B.S.
Dietitian, Union, West Campus
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Hagemeyer, Mabel, A.B., M.S. Production Supervisor, Union, West Campus Duke University
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* Resigned, June 30, 1946.

Wegener, Mrs. Mary E. Supervisor of Dormitories, East Campus

Aldridge, Fred Soule, A.B., A.M. East Campus
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English
Durham, N. C.
A.B., Grinnell College

Braverman, Howard
History
A.B., Brooklyn College; A.M., Duke University
*Carr, Thomas Deaderick Physics Umatilla, Fla.
B.S., M.S., University of Florida

Carroll, Howard
Religion
Easton, Md.
A.B., University of Richmond; B.D., Duke University

Clavering, Rose English Brooklyn, N. Y.
A.B., Brooklyn College

Cohen, Eckford Larry Mathematics Starkville, Miss. B.S., Mississippi State College

Dillingham, William Pyrle Economics Durham, N. C.
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A.B., Bates College ; A.M., Duke University
$\dagger$ Perry, Percival History
Chesterfield, S. C.
A.B., Wake Forest College ; A.M., Rutgers University

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Education
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Greenville, S. C. B.S., Furman University ; A.M., Duke University

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*Brewer, Earl David Clarence
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Cavin, William Pinkney Chemistry
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Name
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$\dagger$ White, Helen Louise Mathematics Arlington, Va. A.B., University of North Carolina

Young, Milla Elizabeth Romance Languages Lancaster, Ohio
A.B., Hiram College
*Second semester only.
$\dagger$ Resigned, December 10, 1945.

# UNDERGRADUATE COLLEGES 

Trinity College<br>The Woman's College<br>The College of Engineering

1945-1946
ANNOUNCEMENTS FOR 1946-1947

## THE COLLEGES

## GENERAL STATEMENT

Duke University offers in Trinity College, the Woman's College, and the College of Engineering three academic degrees for undergraduate work: Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Civil, Electrical, or Mechanical Engineering.

## TRINITY COLLEGE

Trinity College is the undergraduate college of arts and sciences for the men of Duke University and is situated on the West Campus as are the College of Engineering, the Graduate School of Arts and Sciences, the School of Law, the School of Medicine, the School of Nursing, the School of Forestry, and the Divinity School.

## THE WOMAN'S COLLEGE

The Woman's College of Duke University is a college of arts and sciences within the University which provides for the instruction of undergraduate women as Trinity College provides for the instruction of undergraduate men.

## THE COLLEGE OF ENGINEERING

Duke University, through the College of Engineering, offers standard four-year courses in civil, electrical, and mechanical engineering, with an aeronautics option for mechanical engineers.

## THE LIBRARIES

The library resources of the University total 722,613 volumes, 888,879 manuscript pieces, and approximately 3,500 books on microfilm. Eightyone foreign and domestic newspapers and 3,061 periodicals are received currently.

The University Library, in which the bulk of the collection is housed, is centrally located on the West Campus. The main Reference and Reading Room on the second floor contains about 5,000 volumes of important reference works and the books on reserve for senior-graduate courses. The Undergraduate Reading Room on the first floor contains a specially selected collection of approximately 2,500 books for general undergraduate reading and reference, together with the books on reserve for undergraduate courses. The Documents Roonı on the second floor gives students access to the official publications of the federal and state governments. Seniors, honor students, and others undertaking special studies may be admitted to the stacks to facilitate their work. The Chemistry library
of 11,476 volumes, the Physics-Mathematics library of 11,012 volumes, the Biology-Forestry library of 32,146 volumes, the College of Engineering library of 8,761 volumes, and the Divinity School library of 37,623 volumes are housed in the buildings in which these subjects are taught to make them convenient especially to the faculty and students in these fields. The Medical library of 42,385 volumes and the Law library of 78,131 volumes are housed in the Medical and Law buildings respectively.

The Woman's College Library contains 65,702 volumes. Among these are the books most constantly needed in the undergraduate work of women students. An attractive feature of the Library is the Booklovers' Room, where on open shelves students may find interesting books in various fields. In honor of Mr. James A. Thomas, the Thomas Memorial Room was opened in December, 1942. The decorations and furnishings in this room were provided by Chinese and American friends of Mr. Thomas. It affords a quiet, attractive place for studying or reading.

Undergraduate students also have free access to the library collection of the Law School.

## NAVAL RESERVE OFFICERS' TRAINING CORPS

Duke University is one of the fifty-two colleges and universities selected by the Navy in which there will be maintained permanently a Unit of the Naval Reserve Officers' Training Corps. The primary objective of the Naval Reserve Officers' Training Corps is to provide systematic instruction and training in essential Naval subjects for a group of selected students, so that they may be qualified and available for duty as deck officers in the United States Navy. The work supplements other courses taken in the University. Students, satisfactorily completing the required courses along with the other requirements for a bachelor's degree, are commissioned as Ensigns in the United States Naval Reserve.

Since July 1, 1943, the Naval Reserve Officers' Training Corps has been maintained on a full-time, active duty status as a special wartime measure designed to furnish in the shortest possible time commissioned officers for the Navy. During this period students selected by nation-wide examinations and from those already on duty with the Fleet have been assigned to the Unit by the Navy Department. The active duty phase of the program ends on June 30, 1946, and at that time the Naval Reserve Officers' Training Corps will be transferred to a permanent peacetime plan.

The method of selecting the members of the Unit in the future, as well as their rights, duties and privileges, is yet to be prescribed by Congress. The requirements for admission to the Unit, as well as other details of the plan, will be announced and become the subject of a special bulletin as soon as they are available.

The Department of Naval Science and Tactics is an integral part of the University and the courses in Naval Science and Tactics are on the same level and carry the same credit toward graduation as other courses
in the University. It is expected that the required course in Naval Science and Tactics will consist of 24 semester hours. Satisfactory completion of each semester's work is necessary for continuance in the Unit.

The study of navigation and other subjects included as a part of the program requires a basic knowledge of mathematics, including algebra, plane and solid geometry, and plane trigonometry.

## ADMISSION TO TRINITY COLLEGE AND THE WOMAN'S COLLEGE

Applicants may qualify for admission to Trinity College or the Woman's College as members of the Freshman Class or as students with advanced standing. Since the enrollment in the two colleges is limited, the Committee on Admissions will select the students who, in its opinion, are best qualified to benefit from the educational advantages which the colleges offer.

## APPLICATION FOR ADMISSION

Application for admission to Trinity College should be made to the Secretary of Duke University, Duke Station, Durham, North Carolina, for transmittal to the Council on Admissions. Application for admission to the Woman's College should be made to the Committee on Admissions, College Station, Durham, North Carolina. Forms of application will be sent on request.

## GENERAL REQUIREMENTS

Admission to Trinity College and to the Woman's College is dependent upon the ability, attainments, and character of the applicant. Each applicant must see that the Committee on Admissions receives a complete record of his work in secondary school or college, the required medical certificate, and satisfactory evidence of his good character and ability.

## SPECIFIC REQUIREMENTS

An applicant for admission to the Freshman Class must present at least fifteen acceptable units of secondary school credit. A unit of credit is allowed for a course of study pursued throughout an academic year at an accredited secondary school, if the course has demanded five recitations a week and the prescribed amount of work has been completed satisfactorily.

1. Twelve units must be in English, foreign language, history and social studies, mathematics, and natural science; and must include:
(a) English-3 units.
(b) Algebra-1 unit.
(c) Plane geometry-1 unit.
2. Three units may be in the subjects listed above or from those in the following table. The units indicate the maximum amount of credit acceptable in each subject:
SUBJECT UNITS SUBJECT UNITS

Agriculture ....................... 2 Mechanical Drawing ............... 2
Art ................................. 1 Music ................................... 1
Commercial Subjects .............. 3 Physical Geography ................. 1
Economics ......................... 1 Sociology ............................... 1
Household Economics ............. 2 Woodworking, Machine Work .... 2

Other units offered in subjects not included in this list will be considered for acceptance on the basis of full statements transmitted with the applicant's record from the school recommending him.

## ADMISSION BY CERTIFICATE

A graduate of an accredited school, who submits fifteen acceptable units of secondary school subjects, is recommended by his principal, and otherwise meets the requirements of the Admissions Committee, may be admitted without examination. This certificate must be on blanks furnished by the College and signed by the principal of the school in which the applicant completed his course.

## ADMISSION BY EXAMINATION

An applicant who presents fifteen acceptable units for admission from a nonaccredited school is required to validate these units by entrance examinations and such other tests as the College may prescribe.

## ADMISSION WITH ADVANCED STANDING

A student of good character who has completed satisfactorily at least one full year of college work in an approved college may be admitted with advanced standing. He must have fulfilled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions, and have honorable dismissal from each institution previously attended. Credit for work completed will be determined in relation to the curriculum at Trinity College or the Woman's College.

A student enrolling for the Bachelor's degree who transfers from a junior college or from a four-year college not affiliated with the Southern Association, or a similar regional association, is under all circumstances required to continue for at least one semester in Trinity College or in the Woman's College the foreign language he presents for minimum graduation requirements.

A student who has transferred from a junior college or from a fouryear college not affiliated with the Southern Association, or a similar regional association, must present laboratory notebooks in all science courses that are offered for advanced credit.

A student admitted with advanced standing will be given an average grade of "C" on the semester hours with which he is credited, provided his grades warrant it. In order to make his provisional classification final, he must pass during his first year of residence not less than the equivalent of four year-courses, with an average grade of " C " or higher.

The maximum amount of credit acceptable from a junior college is sixty semester hours.

No credit is given for work completed by correspondence, and not more than six semester hours of credit are allowed for work done by extension. Any extension work accepted must be specifically approved by the Dean of the College.

## ADMISSION FOR SPECIAL WORK

Upon the approval of the Dean, a student of mature age may be admitted for special work in such courses of instruction as he is qualified to take, but not as a candidate for a degree in a regular course unless he meets all requirements for admission.

## READMISSION OF FORMER STUDENTS

A student, who, following withdrawal from College, desires to return to the College, should apply to the Dean for readmission. If a student has completed during his absence from the College any undergraduate work in another institution of approved standing, he must submit an official transcript of this work, with a statement of honorable dismissal, from that institution.

## PRELIMINARY TESTS AND EXAMINATIONS

During the orientation period all Freshmen are given placement tests in chemistry, English, mathematics, and the foreign language they are to continue. On the results of these tests and general ability tests students are assigned to the proper sections of their respective academic subjects. Physical examinations are also given.

## REQUIREMENTS FOR DEGREE OF BACHELOR OF ARTS

## GENERAL REGULATIONS

The requirements for the degree of Bachelor of Arts are designed to give the students such training in certain fundamental subjects as is essential for intelligent, educated citizens. The requirements also provide the opportunity for as wide an election as possible from courses of study which are both interesting and practically helpful in connection with vocations the students plan later to pursue.

Credit for one hundred and twenty semester hours, on which an average grade of "C" must be made, is required for the degree of Bachelor of Arts in all groups. In addition to these requirements all candidates for the Bachelor of Arts must complete, with an average grade of "C" or better, physical education to the equivalent of six semester hours. In Trinity College the physical education requirement is completed by the end of the Sophomore year; in the Woman's College, by the end of the Junior year.

The Faculty has authorized the groups of studies below for the guidance of students in selecting the work required for graduation. A student is free to choose any group he may desire. The several groups are designed to be of special value in a chosen profession and at the same time to provide a well-balanced course of study. With the approval of the Dean a student may at any time transfer from one group to another. In such transfers, work done in one group and not prescribed in the other will count as general elective credit, but all work prescribed in the new group must be completed before the student can be graduated.

No student is permitted to take less than fourteen semester hours of work without special permission from the Dean; to take more than the normal load of work (fourteen to seventeen semester hours) unless his average grade in the preceding semester is " C " or above; or, under any conditions, to take more than nineteen semester hours of work, exclusive of required physical education.

On or before the date announced for the spring registration every student is required to designate the group in which he plans to graduate and to arrange his program of courses for the ensuing year. All students, when choosing courses, are urged to seek the advice of instructors in whose departments they expect to receive instruction. No course card is valid until it has the approval of the Dean.

## SPECIAL REGULATIONS

The following special rules applying to the selection of courses are authorized by the Faculty:

The total amount of work that a student, other than an Honors student, may take in any one department toward the Bachelor of Arts degree is limited to a maximum of thirty-six semester hours; with the exception that a student whose principal work is in the Department of English, Economics, or Romance Languages may be permitted to take additional work in subdepartments not to exceed a total in the department and the subdepartments of fifty-four semester hours.

Candidates for the degree of Bachelor of Arts whose courses of study permit may elect work from the following subjects: engineering, not to exceed eighteen semester hours; forestry, not to exceed eighteen semester hours. The courses elected in these departments must be those approved by the Council on Undergraduate Instruction as appropriate for the Bachelor of Arts degree and published in the Bulletin of Undergraduate Instruction. The classification of these courses, as they affect divisions of concentration and restricted electives, is left to the student's major adviser and to the Dean.

No Senior may take for graduation credit any course primarily open to Freshmen; and no Junior may take for graduation credit more than one course primarily open to Freshmen. A list of these courses is published in the Bulletin under "Courses of Instruction."

Not more than one course of six or eight semester hours of credit in final fulfillment of the requirements for the degree of Bachelor of Arts in Duke University may be taken in another institution of approved standing, and this course must first be approved by the head of the department concerned and by the Dean.

## MINIMUM UNIFORM REQUIREMENTS FOR ALL GROUPS

The following requirements are authorized for all groups:


In addition to the above requirements, at least the third college year of a foreign language must be completed.

English 1-2, 6 s.h.-This requirement is normally met by the completion of English 1 and 2. A Freshman whose scores on the placement tests are too low to justify his admission into English 1 is required to earn credit for English L before he may enter English 1. A Freshman who satisfies the Department of English of his superior ability in composition may substitute, however, another English course for English 1.

Natural Science, 8 s.h.-A student who does not present for entrance an acceptable unit of science must take sixteen semester hours of science for graduation.

Economics, History, or Political Science, 6 s.h.-A student who does not present for entrance two acceptable units of history (exclusive of other social science work) must take history as his required work; otherwise, he may fulfill this requirement in any one of the three subjects.

Foreign Language (third college year).-Students who begin their language requirements in college are expected to follow the sequence of courses laid down by the department whose work they take and can omit only such course or courses as may be approved both by the department and the office of the Dean. If a Freshman presents for entrance four units of Latin, he may satisfy his language requirements by taking either two years of Latin or two years of Greek. In exceptional cases, on the recommendation of the department and with the approval of the Dean, a student who has completed the second college year of a language may satisfy the requirement in language by completing the first college year of another language.

Of these minimum requirements, at least three courses, including English and foreign language, should be taken in the Freshman year, and all of them, except foreign language and religion, by the end of the Sophomore year.

These courses primarily open to Freshmen and the courses that will satisfy the requirements in history, science, and religion are listed under "Courses of Instruction."

## GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF ARTS

## GROUP I

## General

This group is based on the traditional requirement for the degree of Bachelor of Arts. Students who choose it must complete the minimum uniform requirements for graduation; forty-two semester hours in a division of concentration, exclusive of courses open primarily to Freshmen (in the Division of the Natural Sciences a maximum of eight hours of Freshman work is permitted in the forty-two hours mentioned above) ; twelve semester hours of restricted electives in the other divisions; and free elective work sufficient to complete, with an average grade of "C," the one hundred and twenty semester hours necessary for graduation. The departments of instruction, for purposes of concentration, are grouped in three divisions:
Humanities: English, Fine Arts, German, Greek, Latin, Music, Philosophy, Romance Languages.
Social Science and History:-Economics, Political Science, Education, History, Religion, Sociology.
Mathematics, Psychology, and Natural Science: Botany, Chemistry, Geology, Mathematics, Physics, Psychology, Zoology.
The forty-two semester hours in the division of concentration must be distributed as follows: eighteen to twenty-four semester hours in a major department and eighteen to twenty-four semester hours in at least two other departments of the same division with a minimum of six semester hours in each department. The minimum number of hours required by the department for a major shall not include any course open primarily to Freshmen. Introductory courses above the Freshman level are to be counted or not at the discretion of the department concerned.

For purposes of concentration certain courses listed in the same de-
partment are considered as being in different departments; namely, courses in French, Italian, and Spanish. Likewise, courses in economics and business administration are reckoned as being in different departments. Also, a student taking his major work in English literature may count courses in English composition, dramatic technique, or public speaking as part of his related work in the same division.

The twelve semester hours of restricted electives must be taken in one or both of the divisions not chosen for concentration, with a minimum of six semester hours in any one department of these divisions.

Attention is called here to a special regulation governing all groups leading to the Bachelor of Arts degree which limits the amount of work a student, other than an Honors student, may take in any one department to a maximum of thirty-six semester hours, with the proviso that a student whose principal work is in the Department of English, Economics, or Romance Languages is permitted to take additional work in subdepartments not to exceed a total in the department and the subdepartments of fifty-four semester hours.

The remaining hours necessary for graduation, after the minimum uniform requirements, the division of concentration, and the restricted electives are satisfied, are open as free electives.

On or before the date announced for the spring registration every Sophomore in the General Group should designate his division of concentration and his major department, and arrange under the guidance of an instructor in the major department his program of studies for the following year. He should obtain the instructor's written approval of all courses selected in the division of concentration before submitting his program to the Dean for final action. In like manner, upperclassmen will recheck their courses in their divisions of concentration each year with representatives of their major departments.

## GROUP II

## Business Administration

This group is designed for students who enter college with the purpose of engaging in some form of business after graduation. The required work consists of the minimum uniform requirements and the courses specified below.

The following arrangement of specified courses is recommended for students electing this group.

A student planning to take the examinations to qualify as a Certified Public Accountant may with the permission of the Department substitute courses in accounting (including Economics 184) for those courses in the following arrangement of courses which are marked with an asterisk.
Freshman Year: Economics 11* (this course is recommended but not required), 6 semester hours of Mathematics.
Sophomore Year: Economics 51-52, Economics 57-58, Political Science 61-62.
Junior and Senior Years: Economics 138*, Economics 143, Economics 144*, Economics 153, Economics 171-172 or Economics 105, 158, Economics 181-182, Economics 189*. Three hours of Economics courses shown in Economic Major Group I or II*.

In addition to the courses specified above, a student in this group must elect nine semester hours from other courses in the Department.

## GROUP III

## Religion

This group is designed for students who plan to enter the ministry or other religious work as a vocation after graduation. The required work consists of the minimum uniform requirements and the courses specified below.

The following arrangement of specified courses is recommended for students electing this group:
Freshman Year: Religion 1-2, History 1-2.
Sophomore Year: Religion (6 hours), Economics 51-52 or Political Science 61-62, English Literature (6 hours).
Junior Year: Religion (6 hours), Psychology 91, English 151-152.
Senior Year: Religion* (6 hours), Sociology (6 hours), Philosophy (6 hours).

## GROUP IV

## Pre-Medical

Students qualifying for college graduation in this group must complete, in addition to the minimum uniform requirements, forty-two semester hours in a division of concentration (subject to the regulations of the General Group), twelve semester hours of restricted electives in one or both of the other divisions with at least six semester hours in one department, and certain specific requirements as noted below. These specific requirements may count as part of the divisional concentration (if the division of concentration is the Natural Sciences) or they may count as restricted electives if another division of concentration is chosen. The foreign language should be German or French, preferably the former and including German 107-108.

The normal division of concentration for students electing this group is that of the Natural Sciences, but the student may elect any one of the other two divisions for his divisional concentration. In this case, it may be necessary for him to complete more than one hundred and twenty semester hours for his degree. If, however, the student chooses the Natural Sciences for his division of concentration, he is urged to take as much elective work as possible in the Divisions of the Social Studies and the Humanities.

Completion of English 1 and 2; Chemistry 1-2, 61-70, 151-152, Physics 51-52; and Zoology 1-2 will satisfy the minimum course recommendations of the Association of American Medical Colleges. Many medical schools advise the completion of additional courses in these and other subjects. The pre-medical student should ascertain the requirements of the particular medical school that he expects to attend.

[^70]The following arrangement of the courses in science is suggested:
Freshman Year: Chemistry 1-2, Zoology 1-2, Mathematics 2, 5.
Sophomore Year: Chemistry 61-70, Physics 51-52.
Junior Year: Chemistry 151-152.

## GROUP V

## College Teaching

This group is designed for students who plan to do work in a graduate school and teach in college. The required work consists of the minimum uniform requirements and the work specified below.

French and German through the second year of college work.* Since one of these languages may be taken through the third year of college work to satisfy the minimum uniform requirements, only the one not taken thus must be chosen to meet the conditions of this group.

Twenty-four semester hours of work in the major subject, exclusive of work in the subject offered primarily for Freshmen; twelve semester hours of work in related subjects approved by the student's Departmental Adviser; twelve semester hours in education, philosophy, and psychology, or in any one, not including any courses in secondary or elementary school methods.

Elective work, not to be taken in the major department, sufficient to complete the one hundred and twenty semester hours necessary for graduation.

At least twelve semester hours of the work taken in the Senior year must be in courses open only to Seniors and Graduates.

## GROUP VI

## Public School Teaching

This group is designed for two classes of students: (a) those who plan to teach in secondary schools; (b) those who plan to teach in elementary schools.

The required work consists of the minimum uniform requirements and the requirements listed under one of the classes below, according to whether the student expects to teach in a secondary school or in an elementary school.

## CLASS A: SECONDARY SCHOOL TEACHING

Students in this class are required to take:
Eighteen semester hours in education of which three semester hours may be in general psychology. $\dagger$ The work in education must include three semester hours in directed observation and practice teaching, three semester hours in educational psychology, and three semester hours in secondary education.

Six semester hours, three each, in materials and methods, in two fields of high-school teaching. (By permission of the Dean's office and the Department of Education three hours of advanced work either in Educa-

[^71]tion or in one of the teaching fields may be substituted for half of this requirement.)

Work in the subject matter of the two subjects the student intends to teach, sufficient to satisfy the minimum requirements as listed in the table below :
English, twenty-four semester hours, to include the six of required work in composition, six in English literature, and six in American literature.
French, eighteen semester hours, based on the usual two units for admissian. German, Spanish, and Greek, the same requirements as for French.
History, eighteen semester hours, including six each in American, ancient and medieval, and modern European history, and six semester hours of economics or political science. It is recommended to prospective teachers of history and related subjects that they take elective work in sociology, geography, and at least a semester each in economics and political science. Latin, eighteen semester hours based on the traditional four units for admission. Mathematics, fifteen semester hours.
Music, thirty semester hours.
Physical Education, fifteen semester hours.
Science, thirty semester hours, including elementary courses in biology, chemistry, physics, and geography or geology.
A student may prepare to teach only one high-school subject by taking a major of twenty-four semester hours in that subject (physical education excepted) in addition to the general required work in Class A, the required work in education and psychology, and the specifically required work in directed observation and materials and methods in the subject chosen. In physical education in the Woman's College the requirement for a major is thirty semester hours including three or four semester hours each of comparative anatomy and physiology.

It is recommended that the elective work, sufficient to complete the one hundred and twenty semester hours for graduation, be chosen in the two subjects the student is preparing to teach and in the Division of Social Science, provided the total amount of work taken in any department may not exceed the total allowed in Group I.

Students who are preparing to teach are advised to read carefully the certification rules of the state in which they intend to teach and to advise fully with the Dean before electing courses in subjects they are preparing to teach. They are further warned to take their professional courses in the order outlined by the Department of Education, reserving for their Senior year courses in materials and methods and in directed observation and practice teaching.

At least twelve semester hours of the work in the Senior year must be in courses open only to Seniors or to Seniors and Graduates.

## CLASS B: ELEMENTARY SCHOOL TEACHING

Students in this class conform to the general requirements of Group I. Education is treated as a major department, and the Social Science Division as the division of concentration. In addition to the general requirements of Group $I$, the following specific requirements must be met:
S.H.

English . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 or 6
American History and Government ........................... 6 or 9
Geography 6
Physical Education and Hygiene .............................................................. 6

These special requirements are reckoned in each case as a part of the appropriate division of concentration. The student in Class $B$ shonld begin the required sequence in Education (courses 84, 88, 101, 110) in the first semester of his Sophomore year.

The following arrangement of courses is recommended for Freshmen entering the Teaching Group. The work for the following years will be arranged by the Department of Education.

## Freshman Year

|  | S.H. |
| :---: | :---: |
| English | 6 |
| Foreign Language | 6 |
| Science .... | 8 |
| History or elective* | 6 |
| Education or elective $\dagger$ | 6 |
|  | 32 |

## GROUP VII

Pre-Legal

This group is designed for students who expect to study law after graduation. The required work consists of the minimum uniform requirements $\ddagger$ and the courses specified below.

The following arrangement of specified courses is recommended:
Freshman Year: Introductory course in History (1-2 if taken in the Freshman year or $51-52$ if taken thereafter).
Sophomore Year: Economics 51-52, Political Science 61-62.
Junior Year: Economics 143, History 105-106, Psychology 91, and either English 151 or 152.
Senior Year: Six semester hours of Economics from courses approved for Seniors.
The electives should be chosen largely from the work offered by the following departments: Philosophy, Sociology, Economics, History, Psychology, and Political Science. The total work (required and elective) in any one department may not exceed thirty semester hours.

At least twelve semester hours of the electives in the Senior year must be Senior-Graduate courses.

## GROUP VIII

## Social Service

This group is designed for students who plan after graduation to pursue professional studies in order to engage in practical social welfare

[^72]work, such as family welfare, child welfare, public welfare, probation and parole, and similar forms of neighborhood and community work. The required work consists of the minimum uniform requirements and the courses specified below. Zoology is recommended for the required course in science.

The following arrangement of specified courses is recommended for students electing this group:

Freshman Year: History 1-2.
Sophomore Year: Economics 51-52, Sociology 91-92 or Sociology 101.
Junior Year: Philosophy ( 6 hours), Political Science (6 hours), Psychology 91, Sociology (6 hours).
Senior Year: Economics (6 hours), Psychology (6 hours), Sociology (6 hours).

The electives should be chosen mainly from history, economics, political science, education, sociology, philosophy, psychology, and religion.

The subjects required for the Junior and Senior years may be transposed according to the courses available in any particular year.

## GROUP IX

## Honors

Purpose: Students who have revealed their desire and demonstrated their ability to do a type of intellectual work higher than that normally required for the liberal arts degree may apply to read for Honors during their last two college years. The aim of the Honors studies is to permit qualified undergraduates to attain a knowledge, both comprehensive and intensive, of a particular field, or fields, under conditions most stimulating to individual initiative and independence.

## General Rules:

I. A student who has sixty-two semester hours of work to his credit and who has completed the minimum requirements for graduation may apply to read for Honors. A departmental committee may, however, permit students to take as much as twelve hours of the minimum uniform requirements in the Junior and Senior years provided that these are offset by the same number of hours in related subjects taken previously in courses not open primarily to Freshmen.
II. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equivalent of sixty semester hours of work.
III. The minimum amount of work that may be taken in the major department shall be the equivalent of twenty-four semester hours, and the maximum shall be the equivalent of thirty-six semester hours.
IV. The related work, which constitutes at least two-fifths of the Honors program, that is, the equivalent of twenty-four semester hours, must be distributed among not less than two departments, unless the
departmental committee gives special permission for the student to take his related work in one department.

Departmental Honors: Honors courses are available to qualified students in the following departmentṣ: Botany, Chemistry, Economics, Education, English, French, German, Greek, History, Physics, Psychology, Religion, and Zoology.

An undergraduate wishing to qualify for Departmental Honors usually enters the General Group during the Freshman year. At the close of the Sophomore year he may apply to read for Honors in a particular department. The requirements for admission to candidacy for Honors vary in the different departments. The student should consult the special requirements set forth in the "Departmental Honors Program." The Departmental Committee determines the eligibility of the various applicants for Honors reading within the department.

Transfer students from colleges of approved standing may be admitted to candidacy for Honors provided they enter here as Sophomores with high records in their chosen field of work. They should consult by April 15 the Honors Adviser of the Department in which they are interested.

The work required of students in the Departmental Honors Group consists of (1) the minimum uniform requirements; (2) the program of Honors for the Junior and Senior years; and (3) elective work sufficient to complete the semester hours necessary for graduation.

Study in a Departmental Honors course always includes work in regular open courses. In both Junior and Senior years it may, and usually does, also include work under special instruction (seminarial or tutorial) and assignments of independent reading.

All candidates who complete satisfactorily the minimum uniform requirements, a Departmental Honors course, and elective work sufficient to earn the necessary hours for graduation will be recommended by the Departmental Committee to the Dean of the College for graduation with Honors.

For brief outlines of the various plans for Departmental Honors the student should see the section, "Departmental Honors Program," among the offerings of each department listed above. Students are also urged to consult the Honors Adviser of the department in which they are primarily interested. A list of these Advisers follows:

| Botany: Miss Addoms | History: Mr. Laprade |
| :--- | :--- |
| Chemistry: Mr. Vosburgh | Physics: Mr. Hatley |
| Education: Mr. Holton | Psychology:Mr. Zener |
| English: Mr. Irving | Religion: Mr. Myers |
| French: Mr. Webb | Zoology: Mr. Johnson |
| German: Mr. Vollmer |  |

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

The general regulations governing the requirements for the degree of Bachelor of Science are the same as those for the degree of Bachelor of Arts. Students selecting this group must complete the following course of study :
S.II.
English 1-2 ............................................................ ${ }^{6}$
French and German (second college year) ..................12-24
Mathematics ......................................................... 6
Natural Science ........................................................ 8
Economics, History, or Political Science ....................... 6
Religion ................................................................ . . 6
Major and related work ............................................. 48
Free electives to make a total of ................................... 120

English 1-2, 6 s.h.-This requirement is normally met by the completion of English 1 and 2. A Freshman whose scores on the placement tests are too low to justify his admission into English 1 is required to earn credit for English L before he may enter English 1. A Freshman who satisfies the Department of English of his superior ability in composition may substitute, however, another English course for English 1.

French and German.-Bachelor of Science candidates must complete at least the second college year, or equivalent as determined by examination, of both French and German.

Mathematics, 6 s.h.-This requirement may be met by completion of Mathematics 2 and 5 .

Natural Science, 8 s.h.-This requirement can be satisfied by courses in one of the natural sciences, namely, Botany, Chemistry, Geology, Physics, and Zoology. The courses must include laboratory work, and may not be counted as part of the major or related work.

Economics, History, or Political Science, 6 s.h.-A student who does not present for entrance two acceptable units of history (exclusive of other social work) must take a course in history; otherwise, he has his choice of Economics, History, or Political Science. The courses that will satisfy this requirement are listed under "Courses of Instruction."

Religion, 6 s.h.-The courses that will satisfy the requirement in Religion are listed in this bulletin under "Courses of Instruction."

Major and Related Work, 48 s.h.-Major and related work consists of forty-eight semester hours in the Division of Natural Sciences. This work must be selected from the Departments of Botany, Chemistry, Geology, Mathematics, Physics, Psychology, and Zoology. The major work consists of not less than twenty-four semester hours in one department, the choice of courses being subject to the approval of the department. The major work does not include courses primarily open to Freshmen. The related work is taken in at least two other departments and is selected subject to the approval of the major department. It may not include more than one course primarily open to Freshmen. A minimum of eight semester hours of the total of forty-eight must be in laboratory science. Further information concerning the requirements for the major and related work in the various departments will be found under "Courses of Instruction."

Free Electives.-In addition to the above, the student must elect sufficient courses to complete, with an average grade of " C ," the one hundred and twenty semester hours necessary for graduation.

The total amount of work that a student, other than an Honors student, may take in any one department toward the Bachelor of Science degree is limited to a maximum of thirty-six semester hours.

No Senior may take for credit any course primarily open to Freshmen, and no Junior may take for credit more than one course primarily open to Freshmen. A list of these courses is published under "Courses of Instruction."

Not more than one course of six or eight semester hours of credit in final fulfillment of the requirements for the degree of Bachelor of Science in Duke University may be taken in another institution of approved standing, and this course must first be approved by the head of the department concerned and by the Dean.

On or before the date announced for the spring registration every Sophomore in this group should select his major department in the Division of Natural Sciences and arrange under the guidance of an instructor in the major department his program of studies for the following year. He should obtain the instructor's written approval of all courses selected in the division before submitting his program to the Dean for final action. In like manner, upperclassmen will check their courses in the division each year with representatives of their major department.

## COMBINED ACADEMIC-PROFESSIONAL COURSES

The provision whereby a Senior may elect the work of the first year in a professional school of the University shall apply solely to eligible students in Trinity College or the Woman's College. The privilege of completing a combined course for the degree is conditioned upon admission to the professional school at the close of the Junior year. A student thus admitted registers as a Senior in the College and as a first-year student in the professional school.

## ACADEMIC-LAW COMBINATION

A student who has completed, with an average grade of " C " or higher, ninety-two semester hours of undergraduate work, including the minimum uniform requirements for the degree of Bachelor of Arts and the work of the Junior year in the division of concentration may, with the approval of the Dean of the College, transfer to that school and be eligible for the degree of Bachelor of Arts from Duke University upon the satisfactory completion therein of the work of the first year.

It is understood that this provision shall apply solely to eligible Duke University undergraduates, and that not less than the full first-year's work of the Law School will be acceptable for credit towards the bachelor degree.

No single discipline or program of study can be described as the best preparation for the study of law. There are various methods of approach to legal study, and the students differ with respect to the undergraduate studies by which they profit most in preparing themselves for law school.

Completion of the undergraduate work necessary to qualify for the Academic-Law Combination does not insure admission to the Duke Unirersity School of Law, nor impose any restriction whatever upon its freedom in selecting students for admission.

The student who does not desire to avail himself of the Academic-Lav Combination above set forth may, nevertheless, enter the Law School when he has satisfactorily completed three years of academic study and has met the other entrance requirements of that school. In the case of veterans with good college records, military service may be substituted for one year of the three-year entrance requirement.

Students wishing information concerning admission to the School of Law are invited to consult with the Dean of that school.

## ACADEMIC-FORESTRY COMBINATION

A student who has completed with an average grade of "C" or higher the program of study given below may, with the approval of the Dean of the College, transfer to the School of Forestry and be eligible for the degree of Bachelor of Science from Duke University upon the satisfac-
tory completion of one year's work. It is understood that this provision shall apply solely to eligible Duke University undergraduates. The professional degree of Master of Forestry may be obtained on the satisfactory completion of an additional year in the School of Forestry.

The program of studies in preparation for admission to the School of Forestry is divided into four parts: (1) a group of studies required of all students; (2) courses required in a selected division of concentration; (3) additional elective courses sufficient to make a total of at least 92 semester hours of credit; and (4) summer field work in surveying and forest mensuration as described below.

The studies required of all students, of which the first four, together with six semester hours of a language, should ordinarily be taken in the Freshman year, are as follows:

| Botany 1-2 | S. ${ }_{\text {H. }} 8$ |
| :---: | :---: |
| Chemistry 1-2 | .. 8 |
| English 1-2 | 6 |
| Engineering Drawing 1-2 | 4 |
| Modern Foreign Language* | -18 |
| Mathematics 2, 5 | 6 |
| Physics 1-2 | 8 |
| Economics 51-52 |  |
| Geology 51 |  |

At the end of the Freshman year each student shall select a division of concentration. One of the following programs of concentration is recommended:

Botany. Botany 51, 151, 156, one additional course in Botany and Zoology 1.
Chemistry. Chemistry 61, 70, and 151-152; and Botany 151.
Economics. Economics 57-58, two additional semester courses in economics, and Political Science 61-62.
A student who does not select one of the above programs must complete the work of the Junior year in a division of concentration.

Summer field work is required of all students in the School of Forestry. This program of 12 weeks, preferably to be taken upon completion of the Junior year, includes Civil Engineering S110 (Plane Surveying), 3 s.h.; Forestry S150 (Forest Surveying), 5 s.h.; and Forestry S151 (Forest Mensuration), 4 s.h.

Completion of the first three years of work toward the Bachelor of Science degree does not insure admission to the Duke University School of Forestry, nor impose any restriction whatever upon its freedom in selecting students for admission.

Students wishing information concerning admission to the School of Forestry are invited to consult with the Dean of that School.

[^73]
## COURSES OF INSTRUCTION, TRINITY COLLEGE AND THE WOMAN'S COLLEGE

Note: Courses primarily for Freshmen are numbered from 1 to 49; those primarily for Sophomores are numbered from 50 to 99; those primarily for Juniors and Seniors from 100 to 199; those primarily for Seniors and Graduates from 200 to 299. The amount of credit for each course is given in semester hours following the description of the course.

Odd-numbered courses are offered in the fall semester, and even-numbered courses are offered in the spring semester. Double numbers indicate that the course is a year course and must normally be continued throughout the year if credit is received. A student must secure written permission from the instructor in order to receive credit for either semester of a year-course.

This is a condensed description of courses. For a full description see the Bulletin of Undergraduate Instruction.

## COURSES OPEN PRIMARILY TO FRESHMEN

Art 1-2
Botany 1-2
Chemistry 1-2, 3-4
Economics 11
Education 1, 4, 6, 8
English 1-2
French 1-2, 3-4
German 1-2, 3-4
Greek 15
Health Education 41

History 1-2
Latin 1-2-3, 4, 15, 16, 41, 42
Mathematics 1, 2, 5, 15, 16
Music 11-12
Philosophy 48
Physics 1-2
Political Science 21-22
Religion 1-2
Spanish 1-2, 3-4
Zoology 1-2

## AESTHETICS, ART, AND MUSIC

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HROFESSOR KATHARINE GILBERT, CHAIRMAN; ASSISTANT PROFESSOR SUNDERLAND,
    DIRECTOR OF UNDERGRADUATE STUDIES IN ART; MR. MUELLER, SUPER-
        VISOR OF FRESHMAN INSTRUCTION IN ART; ASSISTANT
                            PROFESSORS BONE, HALL, AND HULL
                    AESTHETICS
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                    FOR SENIORS AND GRADUATES
    201-202. The Philosophy of Art.-6 s.h.

Professor Gilbert
Professor Gilbert

Mr. Mueller
Mr. Mueller
Mr. Mueller
Mr. Mueller

61-62. Architectural History and Design.-6 s.h.
Assistant Professor Hall
94. American Art.-3 s.h.

Mr. MUeller
101. Mediaeval Architecture.-3 s.h. Assistant Professor Sunderland
102. Mediaeval Painting and Sculpture.-3 s.h.

Assistant Professor Sunderland
103. Renaissance and Barogue Architecture: Italy.-3 s.h.

Assistant Professor Hall
104. Renaissance and Baroque Architecture: Spain and the North.-Prerequisite: 1-2 or 51.3 s.h. Assistant Professor Hall 105. European Architecture since $1700 .-3$ s.h.

Assistant Professor Hall
106. Architecture of the Americas.-Prerequisite : 1-2 or 51 . 3 s.h.

Assistant Professor Hall
110. English Architecture.-Prerequisite : 1-2 or 51.3 s.h.

Assistant Professor Hall
123. Renaissance Painting: Italy.-3 s.h.

Assistant Professor Sunderland
124. Baroque Painting: Italy.-3 s.h. Assistant Professor Sunderland
125. Renaissance Painting: The North. -3 s.h.

Assistant Professor Sunderland
126. Baroque Painting: The North.-3 s.h.

Assistant Professor Sunderland
127. Renaissance and Baroque Sculpture: Italy.-3 s.h.

Assistant Professor Sunderland
130. Painting since $1700 .-3$ s.h. Assistant Professor Sunderland COURSES offered in other departments accredited in this department Greek 141-142. Greek Art.
Greek 247-248. Greek Archaeology.
Psychology 202. Psychology of Aesthetics.

## departmental major

Prerequisites: 1-2, 51-52, or 61-62.
Major Requirements: 53-54, and eighteen hours in courses chosen from the departmental offerings, or from courses in other departments accredited in this Department.

## MUSIC THEORY

11-12. Fundamentals of Music.-6 s.h. Assistant Professor Bone
73-74. Harmony.-Prerequisite: Music 11-12. 6 s.h.
Assistant Professor Hull
113-114. Polyphonic Composition.-Prerequisite: Music 11-12. 6 s.h.
Assistant Professor Hull
115-116. Analysis of Form.-Prerequisite: Music 11-12. 6 s.h.
Assistant Professor Hull
121-122. Orchestration and Conducting.-Prerequisite : Music 11-12 or consent of the instructor. 6 s.h. Assistant Professor Hull

## HISTORY AND CRITICISM

81-82. Introduction to Musical Literature.-6 s.h.
Assistant Professor Hull
131-132. Symphonic Literature.-Prerequisite: Music 81-82 or 11-12, or consent of instructor. 6 s.h.

Assistant Professor Bone
141-142. Choral Literature.-Prerequisite: Music 81-82 or 11-12, or consent of the instructor. 6 s.h.

## MUSIC EDUCATION

## 101. Vocal Methods.-Prerequisite: Music 11-12. 3 s.h. <br> Assistant Professor Bone <br> 102. Instrumental Methods.-Prerequisite : Music 11-12. 3 s.h. <br> Assistant Professor Bone <br> 151-152. Fundamentals of Music for Education Students.-6 s.h. <br> Assistant Professor Bone <br> APPLIED MUSIC

Instruction in organ, piano, violin, viola, woodwind and brass instruments, and voice is available to Duke University students. Membership in the Chapel Choir, the Glee Club, Band, and Symphony Orchestra is open to those who can qualify.
Organ
Piano
Violin and Viola
Mr. Robert Hull
Vocal Ensembles............................................. Mrs. J. Foster Barnes
Orchestra and Chamber Music........................................ Mr. Robert Hull Woodwind and Brass Instruments................................. Mr. Allan Bone
Band. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Mr. Allan Bone

## DEPARTMENTAL MAJOR

In Music Theory:
Prerequisite: Music 11-12.
Major Requirements: Music 73-74, 81-82, 115-116, and six semester hours of general music electives.
In Music History:
Prerequisite: Music 11-12.
Major Requirements: Music 81-82, 131-132, 141-142, and six semester hours of general music electives.
In Music Education:
The Department of Music has set up the following minimum requirements within the thirty hours of credit required by the North Carolina Department of Public Instruction for the Music Teaching Certificate: Music 11-12, 6 s.h.; Music $81-82,6$ s.h.; Music 101 or 102, 3 s.h.; Music 73-74 or 113-114, 6 s.h.; music electives, 9 s.h.

Each candidate must demonstrate his ability to play simple accompaniments and hymns at sight, and must be a member in good standing of at least one University musical organization (Band, Orchestra, Choir, or Glee Club) for a minimum of two years.

The major requirements above are in addition to the professional requirements of the North Carolina Department of Public Instruction which are common to all certificates. This certificate qualifies a person for both high-school and elementary school teaching.

For required Education courses refer to the Department of Education.

## BOTANY

[^74]1. General Botany.-4 s.h. Staff
2. General Botany.-Prerequisite : Botany 1. 4 s.h. Staff
3. Culture and Propagation of Plants.-Prerequisite : one year of botany. 4 s.h.

Associate Professor Addoms
52. Plant Identification.-Prerequisite : one year of botany. 4 s.h.

Professor Blomquist
55. Morphology and Anatomy of Vascular Plants.-Prerequisite : one year of botany. 4 s.h. Associate Professor Oosting
101. Principles of Heredity.-Prerequisite: one (high-school or college) course in biology, botany, or zoology. High-school or college algebra recommended. 3 or 4 s.h. Associate Professor Perry
103. General Bacteriology.-Prerequisite : one year of botany or zoology or equivalent. 4 s.h.

Professor Wolf
104. The Structure and Identification of Lower Plants.-Prerequisite: one year of botany. 4 s.h.

Associate Professor Anderson
151. Introductory Plant Physiology.-Prerequisite: Botany 1, 2 or equivalent; one year of chemistry recommended. 4 s.h. Professor Kramer
156. Plant Ecology.-Prerequisites: Botany 1, 2 and 52, or equivalent. 4 s.h.

Associate Professor Oosting
202. Genetics.-Prerequisites : one year of botany or zoology, or equivalent, and college algebra. 4 s.h.

Associate Professor Perry
203. Plant Cytology.-Prerequisite : one year of botany. 4 s.h.

Associate Professor Anderson
204. Advanced Plant Anatomy.-Prerequisite: Botany 55 or equivalent. 4 s.h. Associate Professor Addoms
216. Botanical Microtechnique.-Prerequisite: two semesters of botany. 4 s.h.

Associate Professor Anderson
221. Structure and Classification of Fungi.-Prerequisite: two semesters of botany: 4 s.h.

Professor Wolf
225-226. Special Problems.
a. Bacteriology, Mycology, and Plant Pathology.

Professor Wolf
b. Cytology.

Associate Professor Anderson
c. Ecology.

Associate Professor Oosting
d. Genetics.

Associate Professor Perry
e. Morphology and Anatomy of Higher Groups.

Associate Professors Addoms and Oosting
f. Morphology and Taxonomy of Lower Groups.

Professor Blomquist and Associate Professor Anderson
g. Physiology. Professor Kramer and Associate Professor Addoms
h. Plant Microchemistry.

Associate Professor Addoms
i. Taxonomy of Higher Groups. Professor Blomquist
252. Advanced Plant Physiology.-Prerequisite: Potany 151 or equivalent ; organic chemistry recommended. 4 s.h. Professor Kramer
255. Advanced Taxonomy.-Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h.

Professor Blomquist
256. Field Ecology.-Prerequisites: Botany 1, 2, and 52 or equivalent. 4 s.h.

Associate Professor Oosting

## FOREST BOTANY

224. Forest Pathology.-Prerequisites: Botany 1, 2. 3 or 4 s.h.

Professor Wolf
253. Dendrology.-Prerequisite: one year of botany. 3 s.h.

Professor Harrar
Related courses which may be counted toward a major in botany. Zoology 110. Introduction to Genetics. 2 s.h. (w) Assistant Professor Johnson

## NAVY V-12 COURSES

*B1 and B2. Biology I and Biology II.-Two lecture-recitation periods and two laboratory periods per week. 8 s.h.

## DEPARTMENTAL MAJOR

## Prerequisites: Botany 1 and 2.

Major Requirements: A minimum of twenty-one hours of work including courses 52,55 , and 104. The remaining hours may be selected from any other courses in the Department for which the student is eligible, subject to the approval of the Departmental Adviser.

## DEPARTMENTAL HONORS PROGRAM

I. Prerequisites: Botany 1-2. A year course in each of three other sciences acceptable to the Departmental Corrmittee. Some of these may be taken concurrently with the Honors work.
II. Honors Work:
a. Botany.

1. Scheduled courses. At least five courses (18-20 semester hours) beyond Botany 1-2.
2. Reading courses and problems, chiefly in the Senior year. Nine semester hours. In addition to scheduled courses, each Honors student will take reading courses in such fields as History of Botany and Theories of Biology; or he may take reading courses in special fields; or he may undertake a special problem; or he may carry on both reading and a problem. This work will count as nine semester hours and will extend through a year at least. The student will report to his Adviser regularly for conference on this work. He may be asked to prepare written reports on the reading courses, and he must make a report on his problem.
b. Philosophy-Six semester hours.
c. Electives in Botany or in other departments, subject to the approval of the Departmental Committee.
III. General Honors Examination: In the spring semester of the Senior year, each student must pass a general examination on the entire field of his Honors work. The Examining Committee consists of the Departmental Committee and such Advisers as have been concerned with his Honors work. The student must present a written report upon his problem and such written reports upon his reading as may be required, before he is permitted to take the general examination.

## CHEMISTRY

PROFESSOR GROSS, CHAIRMAN; PROFESSOR VOSBURGH, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR HILL, SUPERVISOR OF FRESHMAN INSTRUCTION: PROFESSORS BIGELOW, LONDON, SAYLOR, AND WILSON; ASSOCIATE PROFESSORS BROWN, HAUSER, AND HOBBS; ASSISTANT PROFESSOR BRADSHER; AND ASSISTANTS

## 1-2. General Inorganic Chemistry.-8 s.h.

Associate Professor Hill with Professor Wilson; Professor Saylor and Associate Professor Hobbs; Assistant Professor Bradsher and Associate Professor Browx ; and Assistants

* B1 and B2 may be substituted for Botany 1.2 or Zoology 1-2.

61. Fundamentals of Analytical Chemistry.-Prerequisites: Chemistry 1-2, and Mathematics 2 or equivalent. 4 s.h.

Professors Saylor and Vosburgh; Associate Professor Hobbs; and Assistants
70. Quantitative Analysis.-Prerequisite: Chemistry 61. 4 s.h.

Professors Saylor and \osburgh; Associate Professor Hobbs; and Assistants
131. Advanced Quantitative Analysis.-Prerequisite: Chemistry 70. 2 s.h.

Professors Vosburgh and Saylor
151-152. Organic Chemistry.-Prerequisite: Chemistry 61. Course 151 is prerequisite for 152.8 s .h.

Professor Bigelow; Assoclate Professors Brown and Hauser; Assistant Professor Bradsher; And Assistants
153-154. Intermediate Chemistry Laboratory.-2 or 4 s.h.
Professor Bigelow and Other Members of the Staff [Not offered in 1946-47]
173-174. Honors Seminar.-2 s.h.
Professor Vosburgh
215-216. Advanced Inorganic Chemistry.-Prerequisites: Chemistry 70, 151-152, and 261-262. 6 s.h.

Professor Vosburgh and Associate Professor Hill
233. Instrumental Analysis.-Prerequisites: Chemistry 70 and one year of physics. 2 s.h.

Assoclate Professor Hobbs; Professors Vosburgh and Saylor
234. Physico-Chemical Methods of Analysis.-Prerequisites: Chemistry 70 and 261-262; the latter may be taken concurrently. 2 s.h.

> Associate Professor Hobbs; Professors Vosburgh and Saylor
236. Theory of Analytical Chemistry.-Prerequisites: Chemistry 70 and 261-262. 1 s.h.

Professor Vosburgh
241. General Biochemistry.-Prerequisites: Chemistry 70 and 151-152. 4 s.h.

Professor Wilson and Assistant
242. Biochemistry.-Two recitations (credit 2 s.h.), and six laboratory hours (credit 2 s.h.). 4 s.h. Prerequisite: 241 or the permission of the Department. Professor Wilson and Assistant
251. Qualitative Organic Analysis.-Prerequisite: Chemistry 151-152. 1 or 2 s.h. Associate Professor Hauser and Assistant
252. Advanced Organic Preparations.-Prerequisite: Chemistry 151-152. 1 or 2 s.h.

Professor Bigelow and Assistant
253-254. Advanced Organic Chemistry.-Prerequisite: Chemistry 151-152. 4 s.h. Professor Bigelow and Assoclate Professor Hauser

261-262. Physical Chemistry.-Prerequisites : Chemistry 70, 151-152, Physics 1-2, and Mathematics $51-52$ or equivalent. 6 s.h.

Professors Gross And Saylor; Assoclate Professor Hobbs
265-266. Chemical Physics. Statistical Theory, Principles and Applica-tions.-8 s.h.

Professor London
267-268. Chemical Physics. Theoretical Aspects of Atomic and Molecular Structure.-8 s.h.

Professor London
271. Introduction to Research. -1 s.h.
[Not offered in 1946-47] Professors Bigelow, Gross, and Vosburgh

273-274. Seminar.-2 s.h.
Professors Bigelow; Gross, Saylor, and Vosburgh; Associate Professors Brown, Hauser, Hill, and Hobbs; Assistant Professor Bradsher

275-276. Research.-3 or 6 s.h.
Professors Bigelow, Gross, London, Saylor, Vosburgh, and Wilson; Associate Professors Brown, Hauser, Hill, and Hobbs; Assistant Professor Bradsher

## DEPARTMENTAL MAJOR

A. For the degree of A.B.

Prerequisites: Chemistry 1-2, Mathematics 6 s.h.
Major Requirements: Chemistry 61, 70, 151-152, and 6 s.h. selected from courses 131, 233, 241, 242, 251, 252, 253-254 and 261-262.
B. For the degree of B.S.

Prerequisites: Chemistry 1-2, Mathematics 6 s.h.
Major Requirements: Chemistry 61, 70, 131, 151-152, 234, 251, 261-262. The required work in the Science Division must include Mathematics 51-52 and one year of Physics.

## DEPARTMENTAL HONORS PROGRAM

Prerequisites: Chemistry 61, 70 ; Mathematics 6 s.h., and Physics, 8 s.h.
Honors Program: Chemistry 131, 151-152, 173-174, 234, 251, 261-262, and 275-276; Mathematics through integral calculus; Physics, Botany, Geology, or Zoology, 6 s.h.; electives, subject to the approval of the Departmental Honors Committee, 20 s.h. (or enough to satisfy the requirements for graduation).

Chemistry $173-174$ is a seminar primarily for Honors students of both Junior and Senior years. The purpose is to give practice in the use of chemical literature and the oral presentation of assigned topics.

In Chemistry 275-276 an experimental research project is carried out under the direction of a member of the Staff, the object being to gain acquaintance with the aims and methods of research. A written report on the research is required.

A general examination in chemistry is given at the end of both Junior and Senior years.

## ECONOMICS AND BUSINESS ADMINISTRATION

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PROFESSOR HOOVER, CHAIRMAN; PROFESSOR DE VYVER, DIRECTOR OF UNDERGRADUATE
    STUDIES; PROFESSORS BLACK, RATCHFORD, SPENGLER, AND VON BECKERATH;
        ASSOCIATE PROFESSORS EITEMAN, HUMPHREY, LANDON, LEMERT,
        SMITH, SPRINGER, AND WELFLING; ASSISTANT PROFESSORS
            ALLEN, DELAPLANE, AND SHIELDS; DRS. BERRY
                AND VAN VOORHIS
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## ECONOMICS

12. American Economic Institutions.-3 s.h. Associate Professor Smith

51-52. Principles of Economics.-6 s.h.
Staff
103. Transportation.-3 s.h.

Associate Professor Landon
107. Conservation.-3 s.h.

Associate Professor Lemert

## 132. The Economic History of the United States.-3 s.h. <br> Associate Professor Smith

138 Business Statistics.-3 s.h. Associate Profks sors Smith and Springer
139. Advanced Business Statistics.-Prerequisite: Economics 138 or the equivalent. 3 s.h.

Associate Professor Springer
153. Money, Credit and Banking.-3 s.h.

Professor Ratchford; Associate Professor Welfling; and Assistant Professor Delaplane
154. Advanced Money and Banking.-3 s.h.

Professor Ratchford and Associate Professor Welfling
155. Labor Problems.-3 s.h.

Professor de Vyver
169. Economics of Consumption.-3 s.h.
186. Latin-American Economics.-3 s.h.
187. Public Finance.-3 s.h.

Associate Professor Smith
Professor Ratchford
189. Business and Government.-3 s.h. Associate Professor Humphrey
199. Economic Analysis.-3 s.h. Associate Professor Humphrey
215. Economic Systems.-3 s.h. Professor Hoover
216. Economic Functions of the State-3 s.h. Professor Hooner
217. Population, Resources, and Standards of Living. -3 s.h.

Professor Spengler
218. Business Cycles.-3 s.h.

Professor Spengler
230. Public Debts in the United States.-Prerequisite: Economics 187 or consent of instructor. 3 s.h.

Professor Ratchford
231. The Economic History of Modern Europe.-3 s.h.

Associate Professor Smith
233. State and Local Finance.-Prerequisite: Economics 187 or consent of instructor. 3 s.h.

Professor Ratchford
[Not offered in 1946-47]
234. Federal Finance.-Prerequisite: Economics 187 or consent of instructor. 3 s.h.

Professor Ratchford
[Not offered in 1946-47]
237-238. Statistical Methods.-Prerequisite: Economics 138 or consent of the instructor. 6 s.h. Associate Professor Springer

241-242. Value and Distribution.-6 s.h.
245. Problems of Modern Industrialism.-3 s.h.

Professor von Beckerath
256. Labor Legislation.-Prerequisite: Economics 155, or with the consent of the instructor. 3 s.h. Professor de Vyver
260. Social Insurance.-3 s.h. Professor de Vyver
[Not offered in 1946-47]
265. International Trade and Finance.-3 s.h. Assistant Professor Allen
268. Competitive versus Monopolistic Enterprise. -3 s.h.

Professor von Beckerath
280. Advanced Economic Problems.-3 s.h.

Associate Professor Welfling

## buSINESS ADMINISTRATION

## A. ACCOUNTANCY

57-58. Principles of Accounting.-6 s.h.
Professor Black and Assistant Professor Shields

171-172. Advanced Accounting.-6 s.h. Assistant Professor Shields
173-174. Auditing, Theory and Practice.-Prerequisite: Economics 171-172 and permission of the instructor. 6 s.h.

Professor Black and Assistant Professor Shields
175-176. C. P. A. Review.-Prerequisite: Economics 171-172 and permission of the instructor. 6 s.h. Professor Black
177. Income Tax Accounting.-Prerequisite: Economics 171-172 or permission of the instructor. 3 s.h. Assistant Professor Shields
178. Accounting Systems.-Prerequisite: Economics 171-172 or permission of the instructor. $3 \mathrm{~s} . \mathrm{h}$.

Assistant Professor Shields
180. Government Accounting.-Prerequisite: Economics 57-58 and permission of the instructor. 3 s.h. Assistant Professor Shields

275-276. Advanced Industrial Accounting and Management.-Prerequisite : Economics 171-172 and permission of the mstructor. 6 s.h.

Professor Black and Assistant Professor Shields
b. COMMERCE AND INDUSTRY
11. Economic Geography.-3 s.h.
105. Industrial Management.-3 s.h.
109. The Economic Geography of Latin America.-3 s.h.

Associate Professor Lemert
115. Physical Geography.-3 s.h. Associate Professor Lemert
116. Principles of Economic Geography.-Prerequisite: Economics 115. 3 s.h.

Associate Professor Lemert
118. Economic Geography of the South.-3 s.h.
[Not offered in 1946-47] Associate Professor Lemert
120. Economic Geography of the Pacific.-3 s.h.
[Not offered in 1946-47]
Associate Professor Lemert
143. Corporation Finance.-3 s.h.

Associate Professor Eiteman and Others
144. Investments.-Prerequisite: Economics $57-58$ and 143. 3 s.h.

Associate Professor Eiteman
152. Global Geography.-3 s.h.
158. Insurance.-3 s.h.
168. Marketing.-3 s.h.

181-182. Business Law.-6 s.h.
Associate Professor Lemert
Dr. Berry
Associate Professor Landon
Associate Professor Springer
184. Commercial Law for Accountants.-3 s.h.

Professor Black
188. Personnel Management.-Prerequisite: Economics 155. 3 s.h.

Professor de Vyver

## NAVY V-12 COURSES

BA1-2. Principles of Economics I and II.-May be substituted for Economics 51-52. 6 s.h.

BA3. Money and Banking.-May be substituted for Economics 153. 3 s.h.
BA4. Transportation.-May be substituted for Economics 103. 3 s.h.
BA5. Accounting I.-May be substituted for Economics 57. 3 s.h.
BA6. Accounting II.-May be substituted for Economics 58. 3 s.h.
BA7. Statistics I.-May be substituted for Economics 138. 3 s.h.

BA10-11. Business Finance.-Four lecture-recitation periods per week for two terms. May be substituted for Economics 143. 8 s.h.

BA12-13. Business Organization and Management.-May be substituted for Economics 105. 8 s.h.

BA15-16. Business Law.-May be substituted for Economics 181-182. 6 s.h.

BA17. Elementary Cost Accounting.-May be substituted for Economics 275. 4 s.h.

BA18. Accounting and Statistical Controls.- 3 s.h.
BA19. Marketing.-May be substituted for Economics 168. 3 s.h.
DEPARTMENTAL MAJOK
A major in economics requires the following election of courses.
A
Economics 51-52. Principles of Economics.
Economics 138. Business Statistics.
Economics 153. Money and Banking.
B
A minimum of two courses from each of the following groups:
Group I
Economics 154. Advanced Money and Banking.
Economics 187. Public Finance.
Economics 199. Economic Analysis.
Economics 218. Business Cycles.
Economics 265. International Trade and Finance.
Group II
Economics 132. Economic History of the United States.
Economics 155. Labor Problems.
Economics 189. Business and Government.
Economics 215. Economic Systems.
Economics 217. Population, Resources and Standards of Living.
C
Additional hours in Junior and Senior courses in Econumics to total 30 hours (including Economics 51-52).

D
Related work of at least six hours selected from the following courses:
Economics 57-58. Principles of Accounting.
Economics 143. Corporation Finance.
Economics 152. Global Geography.
Economics 158. Insurance.
Economics 168. Marketing.
Note: Students who take Economics 51-52 in their Freshman year may in their Sophomore year enroll in courses in the department ordinarily open oniy to Juniors.

## EDUCATION

PROFESSOR HOLTON, CHAIRMAN ; PROFESSOR PROCTOR, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR EASLEY, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BROWNELL, CARR, CHILDS, AND SCATES; VISITING ASSISTANT PROFESSOR VAN ALSTYNE; ASSISTANT PROFESSOR WATSON; AND ASSISTANTS

1. Orientation Course in Study and Study Habits.-3 s.h. Staff
2. A Study of Reading Skills.-3 s.h.

Visiting Assistant Professor Van Alstyne
8. The Learning Process.-3 s.h. Staff
54. Introductory Course in History of Education.-3 s.h. Staff
68. Mental Hygiene of the School Child.- 3 s.h.

Associate Professor Easley and Visiting Assistant Professor Van Alstyne
84. Social Foundations of Education.-3 s.h.

Professors Holton and Proctor
Note: Courses $84,88,101$, and 110 constitute a sequence of twelve required hours of the work in Education in Group VI of the groups of studies leading to the Bachelor's degree. Students should confer with the director of undergraduate studies of the department as to working this sequence into their schedules.
88. Psychological Foundations of Modern Education.-3 s.h.

Professor Brownell and Visiting Assistant
See note following course 84 .
Professor Van Alstyne
101. Introduction to Curriculum and Technique of Teaching.-3 s.h.

See note following course 84 .
Professor Carr
105. Introduction to Educational Sociology.-3 s.h. Professor Childs
110. Introduction to Measurement and Research in Education.-3 s.h.

See note following course 84.
Professor Scates
112. Methods of Teaching and Presentation of Subject Matter in the Primary Schools.-Prerequisite : course 101. 4 s.h. Professor Carr
A. Integrated Art in the Public School. Mrs. Mason [Not offered in 1946-47, unless as many as eight students enroll.]
B. Industrial Art in the Public School. Mrs. Mason
[Not offered in 1946-47, unless as many as eight students enroll.]
115-116. Secondary Education: Principles and Practice.-6 or 8 s.h. Professor Childs and Assistants
118. Educational Implications of Genetic Psychology.--Prerequisite : three semester hours in psychology or educational psychology. 3 s.h.

Professor Brownell
122. Methods of Teaching and Presentation of Subject Matter in the Grammar Grades.-Prerequisite : course 101. 4 s.h.

Professor Carr
128. Tests and Measurements in Personnel Work.-3 s.h.

Assistant Professor Watson
131. Observation and Practice Teaching.-1 s.h. Professor Carr
132. Materials and Methods in Health Education.-3 s.h.

Associate Professor Aycock
136. The Teaching of High-School English.-3 s.h.

Assistant Professor Jordan
142. Children's Literature.-3 s.h.
170. The Social and Economic Position of Women.-2 s.h. Mrs. Smith
176. Materials and Methods in High-School Sciance.-Prerequisite: at least eighteen hours of science in college. 3 s.h.

Professor Scates
185. The Teaching of Religion and Ethics.-3 s.h.

Assoclate Professuk Crum
200. Introduction to the Philosophy of Education.-3 s.h.

Professor Holton
203. Principles of School Administration.-Prerequisite: six semester hours of courses 103 and 88 or their equivalent. 3 s.h. Professor Proctor [Not offered in 1946-47]
205. Curriculum Problems in Secondary Education.-3 s.h.
[Not offered in 1946-47]
Professor Chilus
206. Sociological Foundations of the Secondary School Subjects.-Prerequisite: general sociology or approved work in education, including course 105. 3 s.h.

Professor Childs
207. Technique of Teaching.-3 s.h. Professor Carr
[Not offered in 1946-47]
208A. Mental Tests and Applications.-Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. 3 s.h.

Associate Professor Easley and Visiting Assistant Professor Van Alstyne
208B. Mental Tests and Applications.-2 s.h.
Associate Professor Easley and Visiting Assistant Professor Van Alstyne
209. Statistical Methods Applied to Education.-3 s.h. Professor Scates
212. Psychology of the Elementary School Subjects.-3 s.h.

Professor Carr
213. Problems in the Organization and Administration of Elementary School.-3 s.h. Professor Proctor
214. History of Education in the United States.-3 s.h. Professor Holtox [Not offered in 1946-47]
215. Educational and Vocational Guidance:-Prerequisite: twelve semester hours in the Department, including course 105 or course 206. 3 s.h.

Professor Childs
216. Psychological Principles of Secondary Education.-3 s.h.
[Not offered in 1946-47]
Professor Childs
218. Educational Implications of Genetic Psychology.-Prerequisite: six semester hours of psychology or educational psychology. 3 s.h.

Professor Brownell
219. Experimental Education.-3 s.h.

Professor Brownell
222. The Curriculum and Materials of the Elementary Grades.-3 s.h.

Professor Carr
225. The Teaching of History and the Social Studies.-3 s.h.
[Not offered in 1946-47]
Associate Professor Manchester
227. The Psychology of Learning: Problems. -3 s.h.

Associate Professor Easley
228. The Psychology of Learning: Theoretical and Experimental.-Prerequisite: course 227 or its equivalent. 3 s.h. Associate Professor Easley

> 232. Elementary School Supervision.-3 s.h.
233. Administrative Pupil-Accounting.-3 s.h.

Professor Carr
234. Secondary School Organization and Administration.-3 s.h.

Professor Proctor
237. Investigations in Reading.-3 s.h.

Professor Carr
244. Studies in the Historical Development of Public School Administra-tion.-3 s.h.

Professor Holton
[Not offered in 1946-47]
246. The Teaching of Mathematics.-3 s.h. Professor Rankin [Not offered unless enrollment justifies.]
247. Investigations in Arithmetic.-3 s.h.

Professor Brownell
253. Legal Phases of School Administration.-3 s.h. Professor Hol,ton [Not offered in 1946-47]
254. History of Secondary Education in the United States. -3 s.h.
[Not offered in 1946-47]
Professor Proctor
258. Educational Measurements.-Prerequisite: twelve semester hours in the Department, including a course in educational psychology. $3 \mathrm{~s} . \mathrm{h}$.

Professor Scates
264. Recent Movements in American Education.-3 s.h. Professor Holton [Not offered in 1946-47]
266. The Teaching of High-School French.-3 s.h.

Professor Webb
294. Comparative Education: Recent Movements in European Educational Systems.-3 s.h.

Professor Carr
[Not offered in 1946-47]

## DEPARTMENTAL MAJOR

A major in the Department of Education consists of twenty-four semester hours of work above the Freshman year, not including any work listed as primarily for Freshmen, and including at least six semester hours of courses limited to Seniors or to Seniors and Graduates. Students, however, who obtain credit for courses 4 and 8 will be permitted to complete a major by taking twenty hours of additional work in the Department, provided twelve hours are courses limited to Seniors or to Seniors and Graduates. Before graduation, majors in the Department must have credit for at least one course in educational psychology, such as 8,58 , or 88 , and one course in history and philosophy of education, or in educational sociology. The remainder of their work may be elected from courses listed for Sophomores, Juniors, and Seniors, provided at least six semester hours of the course work are taken from courses listed for Seniors and Graduates, and provided that not more than six semester hours may be of courses numbered below 100 .

## DEPARTMENTAL HONORS PROGRAM

Students may become candidates for Honors in education who have passed with grade of "B" or better in their Freshman or Sophomore years six semester hours of education.

Candidates for Honors in education are required to take in the Junior year twelve semester hours in the Department and to make an average of " B " or better on this work. The remaining work in the Junior year will be chosen from related work and other electives with the consent of the Departmental Committee on Honors. In the Senior year, in addition to the equivalent of twelve semester hours of supervised reading in education, the candidate must
elect with the approval of the Departmental Committee on Honors six semester hours of work from the courses in education offered in the 200 group, on which he is required to make a grade of " B " or better and twelve semester hours of related or other elective work.

Of the supervised reading, which shall be done under the immediate supervision of members of the Departmental Committee on Honors, the equivalent of six semester hours shall be devoted to the History of Education; the remaining six semester hours shall be devoted to Educational Psychology, or Secondary Education, or Elementary Education, or Public School Administration as the student may elect and the Departmental Committee approve. In exceptional cases, qualified students may be permittted to take six semester hours of the supervised reading during the Junior year and increase the amount of course work in the Department the Senior year.

At the conclusion of the work the student shall be given an oral examination by a committee of three, consisting of the two members of the Departmental Committee on Honors in charge of his supervised reading and another member of the Department selected by the Departmental Committee.

## ENGLISH

PROFESSOR WHITE, CHAIRMAN; ASSOCIATE PROFESSOR SANDERS, SUPERVISOR OF FRESHMAN INSTRUCTION ; PROFESSORS BAUM, GILBERT, GOHDES, HUBBELL, AND IRVING; ASSOCIATE PROFESSORS BEVINGTON, BLACKRURN, LEARY, MITCHELL, PATTON, TALBERT, WARD, AND WEST; ASSISTANT PROFESSORS BOWMAN, HERRING, JORDAN, POTEAT, SUGDEN, VANCE, AND WHITE:

DRS. HARWELL AND RULFS; MESSRS. BADENOCH, BRADLEI, COX, FITZGERALD, AND SWAIN ; MRS. BEVINGTON
1-2. English Composition.-6 s.h.
Associate Professors Bevington, Blackburn, Leary, Patton, Sanders, Talbert, and Ward; Assistant Professors Bowman, Jordan, Poteat, Sugden, Vance, and White; Drs. Harivell and Rulfs; Messrs. Bradley, Cox, Fitzgerald, and Swain; Mrs. Bevington
53. English Composition.-3 s.h.
58. English Composition.-3 s.h.
[Not offered in 1946-47]
65-66. English Composition.-6 s.h. [Not offered in 1946-47]
101-102. Advanced English Composition.-6 s.h.
Associate Professor Mitchell
103-104. English Composition.-6 s.h.
107-108. Journalism.-6 s.h.
109-110. English Composition.-6 s.h. [Not offered in 1946-47]
133. Verse-Writing. -3 s.h. Professor White [Not offered in 1946-47]

DRAMATICS AND SPEECH
105-106. Playwriting.-6 s.h. Associate Professor West [Not offered in 1946-47]
119-120. History of the Theater.-6 s.h.
Associate Professor West
[Not offered in 1946-47]
121-122. Play Production.-6 s.h.
139-140. Speaking Voice.-6 s.h.

Associate Professor Blackburn Assistant Professor Sugden Associate Professor Blackburn Assistant Professor Jordan Assistant Professor Jordan

Asssociate Professor Sanders


[^75]Mr. Badenoch
151. Essentials of Public Speaking.-3 s.h.

Mr. Badenoch
152. Argumentation.-Prerequisite: English 151. 3 s.h.

Assistant Professor Herring and Mr. Badenoch
ENGLISH AND AMERICAN LITERATURE AND LANGUAGE
55-56. Representative Writers.-6 s.h.
Professor Irving; Associate Professors Blackburn, Patton, Sanders, and Ward; Assistant Professors Poteat, Sugden, and Vance
63-64. Introduction to English Poetry.-6 s.h.
Associate Professor Mitchell
123-124. Shakespeare.-6 s.h.
Associate Professor Talbert
125-126. English Literature, 1789-1832.-6 s.h.
Professor White; Associate Professors Patton and Sanders; and Assistant Professor White
127-128. English Literature, 1832-1900.-6 s.h.
[Not offered in 1946-47]
Associate Professor Bevington
129-130. English Novel.-6 s.h.
Associate Professor Mitchell and Assistant Professor Vance
131-132. English Literature, 1832-1900.-6 s.h.
Associate Professors Bevington and Sanders
135-136. Major Works of the Victorian Period.-6 s.h.
Associate Professors Bevington and Sanders
137-138. American Literature.-6 s.h.
Professor Gohdes and Associate Professor Leary
142. Materials and Methods of Teaching High-School English.-3 s.h.

Assistant Professor Jordan
143-144. English Literature: Elizabethan and Seventeenth Century.- 6 s.h.
Associate Professor Blackburn
145-146. English Poetry, 1832-1900.-6 s.h. Associate Professor Sanders [Not offered in 1946-47]
153-154. Comparative Literature.-6 s.h. Professor Irving
155-156. Contemporary Drama.-6 s.h. Assistant Professor White
159-160. English Literary Biography.-6 s.h. Professor White
[Not offered in 1946-47]
165-166. The Short Story in America.-6 s.h.
Professors Hubbell and Gohdes
167-168. English Prose, 1790-1830.-6 s.h. Associate Professor Patton FOR SENIORS AND GRADUATES
201-202. Anglo-Saxon.-6 s.h. Professor Baum
203-204. Chaucer.-6 s.h. Professor Baum
205-206. Middle English.-6 s.h. Professor Baum
[Not offered in 1946-47]
207-208. English Literature, 1400-1550.-6 s.h. Professor Baum [Not offered in 1946-47]
209. English Literature Other than Drama, 1550-1625.-3 s.h.

Professor Gilbert
210. English Literature Other than Drama, 1625-1700.-3 s.h.

Associate Professor Ward

## 215-216. Elizabethan Drama.-6 s.h. <br> Professor Gilbert and Associate Professor Talbert

219-220. The Eighteenth Century.-6 s.h. Professor Irving
221-222. English Literature of the Early Nineteenth Century.-6 s.h.
Professor White
223-224. English Literature of the Later Nineteenth Century.-6 s.h.
Professor Baum
[ In 1946-47 only 224 will be offered, in the second semester.]
227. Literary Criticism.-3 s.h.

Professor Gilbert
[In 1946-47 this course will be offered in the second term.]
229-230. American Literature, 1800-1870.-6 s.h. Professor Hubbell
231-232. Special Studies in American Literature.-6 s.h.
[Not offered in 1946-47]
Professor Gohdes
233-234. American Literature since 1870.-6 s.h. Professor Gohdes
235-236. History of American Drama.-6 s.h. Associate Professor Leary
237. English Drama, 1642-1800.—3 s.h. Associate Professor Ward

247-248. American Literature of the Colonial Period.-6 s.h.
Associate Professor Leary
269-270. Southern Literature.-6 s.h.
Professor Hubbell
[In 1946-47 only 269 will be offered, in the second term. 3 s.h.]

## NAVY V-12 COURSES

E1-2. English I and II.-Three discussions and writing periods each week for two terms. May be substituted for English 1-2. 6 s.h.

E3-4. English III and IV.-A study of notable contributions to the literature of ideas about man in his social relations. 6 s.h.

E5. English Literature.-An introduction to the major works of English literature. 3 s.h.

E6. American Literature.-An introduction to the major works of American literature. May be substituted for English 137. 3 s.h.

For E6 one of the following is a prerequisite: E3-4, E55 or 56, or E123 or 124. E3 was offered March-July, 1944.

## DEPARTMENTAL MAJOR

All majors in English will center their work around one of five period courses. One additional English course will be closely related to this period course and one will not. Related work will be chosen carefully to support wherever possible the body of knowledge acquired in the English courses. Teachers in charge of the period courses will act as an advisory board for majors and assist them in the choice of English courses, related work, and electives.

Prerequisites: English 1 and 2.
Requirements for the Major: A major in English consists of twenty-four semester hours of credit distributed as follows: Six hours must ordinarily be devoted to either English 55-56 or English 63-64; six hours to one of five designated period courses (English 143-144, 219-220, 125-126, 131-132, or $137-$ 138) ; six hours to a course or courses contiguous with or closely related to the period course chosen; and six hours to a course or courses not contiguous with or closely related to the period course chosen. At least six hours of these must be drawn from courses the material of which is predominantly

English literature written earlier than 1800. Courses in Comparative Literature, Composition, Dramatics, and Speech may be counted as related work. So far as possible, students' programs will be made up of complete year courses.

## FORESTRY

Students without a Bachelor's degree who are preparing for work in forestry as a profession should take the courses outlined under the AcademicForestry Combination. However, with the consent of the instructor in charge, certain forestry courses may be elected by students in other curricula provided they have had adequate preparation (see Bullctin of the School of Forestry).

Members of the Sophomore, Junior, and Senior classes may elect the following course:
52. Principles of Forestry.-2 s.h.

Associate Professor Thomson

## GEOLOGY

ASSOCIATE PROFESSOR BERRY
51. General Geology.-4 s.h.

Associate Professor Berry
52. General Geology.-Prerequisite: Geology 51. 4 s.h.

Associate Professor Berry
53. Physiography.-4 s.h.

Associate Professor Berry
64. Map Reading and Construction.-3 s.h. Associate Professor Lemert

101-102. Mineralogy.-Prerequisite: Chemistry 1-2 (can be taken concurrently). 8 s.h.

Associate Professor Berry
151. Economic Geology.-Prerequisite: Geology 101-102. 4 s.h.

Associate Professor Berry
152. Introductory Paleontology.-Prerequisites: Geology 51, 52, and Zoology 1. 4 s.h. Associate Professor Berry

## DEPARTMENTAL MAJOR

Prerequisites: None for Geology 51. Chemistry 1-2 for Geology 101-102; Zoology 1 for Geology 152.

Major Requirements: Geology 51, 52, 101-102, 151, 152.

## GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN; ASSISTANT PROFESSOR MAXWELL, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR WILSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSOR KRUMMEL; ASSISTANT PROFESSOR SHEARS

1-2. Elementary German.-6 s.h. Associate Professor Wilson and Staff
3-4. Intermediate German.-6 s.h. Professor Krummel and Staff
51-52. Third-Year German.-6 s.h.
101-102. Elementary German.-6 s.h. Assistant Professor Maxifell.
103-104. Intermediate German.-6 s.h.
107-108. Scientific and Medical German.-6 s.h.
Professor Krummel; Associate Professor Wilson;
Assistant Professor Maxivell
Professor Krummel
109-110. German Prose Fiction.-6 s.h.
111-112. Introduction to the Classic Drama.-6 s.h.
Associate Professor Wilson
113-114. Nineteenth-Century German Poetry.-6 s.h.
Associate Professor Wilson

115-116. German Drama of the Nineteenth Century.-6 s.h.
Professor Krummel
117-118. German Conversation.-6 s.h.
119-120. German Literature in English Translation.-6 s.h.
Professor Vollmer
121-122. Schiller.-6 s.h.
123-124. Modern German Short Story.-6 s.h.
Assistant Professor Shiears
125-126. Contemporary German Literature.-6 s.h.
Assistant Professor Shears
127-128. Survey of Nineteenth-Century German Literature.-6 s.h.
Professor Vollmer
201-202. Goethe.-6 s.h.
Professor Krummel
203-204. Leibnitz to Romanticism.-6 s.h. Professor Vollmer
205-206. Middle High German.-6 s.h. Professor Vollmer
207-208. German Romanticism.-6 s.h. Professor Vollmer
209-210. Kleist, Grillparzer, and Hebbel.-6 s.h. Professor Krummel
211-212. Heinrich Heine and Young Germany.-6 s.h. Professor Vollmer
213-214. Literature of the Empire, 1871-1914.-6 s.h. Professor Vollmer
NAVY V-12 COURSES
Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language 3-4 may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses.

## DEPARTMENTAL MAJOR

1. Prerequisites: German 1-2 and 3-4.
2. Major Requirements: Twenty-four hours in the German Department. Twelve of these must be selected from the 200 courses. The remaining twelve may be selected from German 51-52 and any courses in the 100 group except 101-102, 103-104, and 119-120.

## HONORS IN GERMAN

Prerequisites:

1. For admission to candidacy for Honors in German, a student must have begun the study of the language not later than the Freshman year in college.
2. A student who has completed at least twelve semester hours of college German by the end of the Sophomore year with a grade of "A" or "B" (equivalent courses in secondary schools or in other colleges may be presented as substitutes) is eligible to apply to the Departmental Committee for permission to read for Honors in German. General Rules:
I. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equivalent of sixty semester hours of work.
II. Work in the German Department: The amount of work taken in the German Department shall be the equivalent of thirty-six semester hours. Of this the work done in the Honors tutorials shall count twelve hours, six hours for the Junior year and six hours for the Senior year. The comprehensive examinations at the end of the Senior year are counted as part of this twelve semester hours credit.
III. Related Work: The related work, which constitutes at least two fifths of the Honors program, that is, the equivalent of twenty-four semester hours, must be distributed among not less than two departments, unless the Departmental Committee gives special permission for the student to take his related work in one department.
IV. General Honors Examinations: In May of the Senior year the candidate will be given a general written examination, conducted by his Adviser, on his Honors Reading. A general oral examination, conducted by the Departmental Committee and presupposing a general knowledge of the development of German culture and civilization and a practical ability in the use of the German language, will also be conducted in May.

## GOVERNMENT

See courses listed under Political Science.

## GREEK

ASSISTANT PROFESSOR ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSORS TRUESDALE AND WAY
1-2. Course for Beginners.-6 s.h. Assistant Professors Rose and Way 53-54. Xenophon.-6 s.h. Assistant Professor Rose 105-106. Homer. -6 s.h. Assistant Professor Rose 107-108. Euripides.-6 s.h. Assistant Professor Way
15. Mythology.-3 s.h.

Assistant Professors Rose and Truesdale 115-116. Sight Reading in Greek.-4 s.h.

Assistant Professors Rose and Way
117-118. Greek Prose Composition.-3 s.h. Assistant Professor Rose
121-122. Greek Literature in English Translation.-6 s.h.
Assistant Professors Rose and Truesdale

141-142. Greek Art.-6 s.h.
131. History of Greece.-3 s.h.

203-204. Homer.-6 s.h.
207-208. Greek Orators.-6 s.h.
209-210. Plato.-6 s.h.
243. Athenian Topography.-3 s.h.
244. Greek Epigraphy.-3 s.h.
245. Greek Dialects.-3 s.h.
246. Greek Historical Inscriptions.-3 s.h.

247-248. Greek Archaeology.-6 s.h.

Assistant Professor ${ }^{\circ}$ Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
257. Social and Cultural History of the Hellenistic World from Alexander to Augustus.-3 s.h.

Professor Rogers

## Navy V-12 COURSES

Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language 3-4 may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses.

Prerequisites: Greek 1-2.
Major Requirements: A candidate for a major in Greek must complete twenty-four semester hours, including the following courses: Greek 53-54, 105-$106,107-108,117-118$, and 131.

## DEPARTMENTAL HONORS PROGRAM

For admission to candidacy for Honors in Greek the student must have completed Greek 1-2 and 53-54 or their equivalent.

Candidates for Honors must complete the following program of work:
(a) Greek 105-106, 131, 141-142, 107-108, 122, and 117-118.
(b) Four year-courses in related departments.
(c) The Honors Reading. This is tutorial work in which the student is required to read assigned portions of Greek literature by himself, to write papers on topics related to his reading, and to meet the Honors Adviser in weekly conferences for the discussion of the literature that he is reading independently. For the Honors Reading a credit of nine semester hours is given.

Students who enter the University with advanced standing in Greek take higher. courses in the language than those listed above.

At the end of the Senior year candidates for Honors must pass a comprehensive examination in writing on the subject-matter covered by their studies in Greek.

Graduates of Duke University may attend the American School of Classical Studies at Athens, Greece, without charge for tuition, and are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology and one in the language, literature, and history of ancient Greece, each with a stipend of $\$ 1,300$. They are awarded mainly on the basis of examinations held in the beginning of February of each year.

## HEALTH AND PHYSICAL EDUCATION trinity college and the college of engineering

MR. CAMERON, DIRECTOR; MESSRS. AYCOCK, BURGER, CALDWELL, CARD (INACTIVE), CHAMBERS, COOMBS, COX, DEAN, GERARD, HAGLER, HENNEMIER, HILL, LEWIS, MONTFORT, PERSONS, POTTER, WADE

PHYSICAL EDUCATION CLASSES

1-2. Basketball. $-11 / 2$ s.h.
3-4. Boxing. $-11 / 2$ s.h.
5-6. Individual Corrective Activities.-1²/2 s.h.
7-8. Handball. 1 1 $/ 2$ s.h.
9-10. Softball.-1 $1 / 2$ s.h.
11-12. Soccer Football.-1 $1 / 2$ s.h.
13-14. Swimming.-1 $1 / 2$ s.h.
15-16. Touch Football.-1 $1 / 2$ s.h.
17-18. Tennis. $1^{1 / 2}$ s.h.
19-20. Tumbling Stunts.-1 $1 / 2$ s.h.
21-22. Postural Training.-1 $1 / 2$ s.h.
25-26. Wrestling. $-11 / 2$ s.h.
27-28. Apparatus Stunts. -1 1/2 s.h.

Mr. Caldwell
Mr. Potter
Mr. Aycock
Mr. Gerard
Mr. Hennemier
Mr. Gerard
Mr. Persons
Mr. Gerard
Mr. Cox
Mr. Card
Mr. Aycock
Mr. Potter
Mr. Card
49. Lacrosse. $-11 / 2$ s.h.

55-56. Individual Corrective Activities. $-11 / 2$ s.h.
59. Baseball.- $1^{1 / 2}$ s.h.

61-62. Golf.-1 $1 / 2$ s.h.
63-64. Advanced Tennis.- $11 / 2$ s.h.
65-66. Advanced Apparatus. $11 / 2$ s.h.

Mr. Potter
Mr. Aycock
Mr. Coombs
Mr. Hagler
Mr. Cox
Mr. Montfort

## INTERCOLLEGIATE ATHLETIC SPORTS

FRESHMEN
30. Baseball.- $1^{1 / 2}$ s.h.
32. Basketball. $-11 / 2$ s.h.
37. Football.- $11 / 2$ s.h.
38. Football. $-11 / 2$ s.h.
41. Cross Country.-1 $1 / 2$ s.h.
42. Swimming. $11 / 2$ s.h.
44. Tennis. $11 / 2$ s.h.
46. Track.-1 $1 / 2$ s.h.
48. Wrestling. $11 / 2$ s.h.
50. Lacrosse. $1^{11 / 2}$ s.h.

VARSITY
70. Lacrosse.- $11 / 2$ s.h.
80. Baseball.- $11 / 2$ s.h.
82. Basketball.- $11 / 2$ s.h.
83. Basketball. $-11 / 2$ s.h.
87. Football. -1 1/2 s.h.
88. Football.- $11 / 2$ s.h.
90. Golf.-1 $1 / 2$ s.h.
91. Cross Country.-1 $1 / 2$ s.h.
92. Tennis.- $11 / 2$ s.h.
93. Soccer Football.-11/2 s.h.

VARSITY
94. Swimming. $-1 / 2$ s.h.
95. Track.-1 $1 / 2$ s.h.
96. Track.-1 $1 / 2$ s.h.
98. Wrestling. 1 1/2 s.h.

## ELECTIVES IN PHYSICAL EDUCATION

Students in Group VI A may elect fifteen semester, hours from the courses offered below. Six semester hours may be elected from the courses listed under Special Methods in Physical Education and nine semester hours may be elected from the courses listed under Theory and Practice in Physical Education.

These courses are arranged to meet the increasing demand for teachers who are qualified to coach and teach physical education. These courses should be selected with the advice of the Director of Undergraduate Studies in order to meet the needs of the individual.

## SPECIAL METHODS IN PHYSICAL EDUCATION

163. Athletic Coaching in Secondary Schools.-Prerequisites: courses 30 or 80 and $21-22$ or 46 or 96 or their equivalent. 3 s.h.

Mr. Coombs and Mr. Chambers
164. Athletic Coaching in Secondary Schools.-Prerequisites : courses 37 or 87 and $1-2$ or 32 or 82 or their equivalent. 3 s.h.

Mr. Cameron and Mr. Gerard
THEORY AND PRACTICE IN PHYSICAL EDUCATION
65. History and Principles of Physical Education.-3 s.h. Mr. Aycock and Mr. Gerard
172. Recreational Leadership.-3 s.h.

Mr. Gerard
173. Individual Gymnastics.-3 s.h.

Mr. Aycock
182. The Administration of Health and Physical Education in Secondary Schools.-3 s.h. Mr. Aycock and Mr. Gerard
187. School Programs of Physical Education.-3 s.h.

Mr. Gerard
190. Protective Practices in Physical Education.-3 s.h. Mr. Chambers Navy V-12 COURSES
Navy V-12 courses may be substituted for required physical training.

## WOMAN'S COLLEGE

ASSOCIATE PROFESSOR GROUT, CHAIRMAN; ASSISTANT PROFESSORS BOOKHOUT AND LEWIS; MRS. BERRY, MISS LITTLE, MISS MCKEE, MISS

VAN TUYL, AND MISS WEEKS

## PHYSICAL EDUCATION ACTIVITIES

Six hours of credit in physical education, with an average grade of "C," must be completed for graduation. Two hours a week through the Junior year are needed to fulfill this requirement.

All students are given a physical and medical examination upon entering and at intervals throughout their college course. Classes in individual gymnastics and light sports are arranged for those who should not take the more active work.

October to December: Badminton, bowling, diving, golf, hockey, recreational sports, riding, soccer, swimming, tennis, volleyball.

December to March: Badminton, basketball, body mechanics, bowling, folk and square dancing, social dancing, modern dance, rhythm fundamentals, fencing, individual gymnastics, life saving, swimming.

March to May: Archery, badminton, bowling, diving, fencing, golf, life saving, modern dance, riding, softball, swimming, tennis, track and field activities.

## PHYSICAL EDUCATION THEORY

Students in Group VI A may receive academic credit for all courses listed below.

Students in Group VI B may receive academic credit for Physical Education 102, Health Education 41 and 112.

Students in all groups may receive credit for Physical Education 105-106, 108, 114, and Health Education 41, 112, and 115.
101. History and Principles of Physical Education.-2 s.h.

Associate Professor Grout
102. The Teaching of Physical Education in Elementary Schools.-3 s.h. Miss Weeks
103. Group Games of Low Organization.-2 s.h. Miss Weeks
[Offered every other year alternating with P.E. 107.]
105-106. Methods and Materials in Recreation.-6 s.h. Miss McKee
107. The Teaching of Rhythmic Activities.-2 s.h.

Assistant Professor Leivis
[Offered every other year alternating with P.E. 103.]
108. Problems in Community Recreation.-3 s.h. Miss McKee
114. Kinesiology.-Prerequisites: Zoology 1 and 2, and Zoology 53. 3 s.h. Miss Little
118. Orthopaedic and Remedial Physical Education.-2 s.h. Miss Little

# 119. Organization and Administration of Physical Education.-2 s.h. <br> Associate Professor Grout 

181-182. Methods and Materials in Physical Education.-4 s.h.
Assistant Professor Lewis and Staff
185-186. Advanced Methods and Materials in Physical Education.-4 s.h. Assistant Professor Lewis and Staff HEALTH EDUCATION
41. Personal Health Problems.-3 s.h.

Mrs. Berry
112. School Health Problems.-3 s.h.

Mrs. Berry
115. Community Health Problems.-Prerequisite: Health Education 41. 3 s.h.

Mrs. Berry

## REQUIREMENTS FOR TEACHING HEALTH AND PHYSICAL EDUCATION IN PUBLIC SCHOOLS

The following requirements have been set up for students in Group VI A who wish to qualify as full-time or part-time teachers of Health and Physical Education. These requirements meet the standards of the North Carolina Department of Public Instruction for certification in Health and Physical Education and of most of the other states represented in the student body. Students preparing to teach in any state are advised to check with the department as to specific requirements.

Prerequisites: Zoology 1-2, Health Education 41.
Thirty semester hours, including Physical Education 101, 103, 107, 114, 118, 119, 181-182, 185-186, Health Education 112 and Zoology 53, 151.

Education Requirements: Consult Department of Education.
Students preparing to teach physical education and health on a part-time basis only are advised to take at least the following program:

Prerequisite: Health Education 41.
A minimum of fifteen semester hours including Physical Education 101, 103, 107, 119, 181-182, Health Education 112.

Education Requirements: Consult Department of Education.

## HISTORY

PROFESSOR LAPRADE, CHAIRMAN; ASSOCIATE PROFESSOR NELSON; DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR HAMILTON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BALDWIN, CARROLL, CLYDE, LANNING, AND SYDNOR; ASSOCIATE PROFESSORS CURTISS, MANCHESTER, ROBERT, AND WOODY; ASSISTANT PROFESSORS ACOMB, NICHOLS, PARKER, QUYNN, ROPP, AND STILL; DRS. FERGUSON, AND WATSON; MESSRS. LONG AND VAN DUSEN
1-2. Historical Background of the World Today.-6 s.h.
Associate Professors Curtiss, Manchester, and Nelson; Assistant Professors Acomb, Hamilton, Nichols, Parker, and Ropp; Drs. Ferguson and Watson
51-52. Historical Background of the World Today.-6 s.h.
Professor Laprade and Associate Professor Curtiss
63. Naval History and Elementary Strategy.-3 s.h.

Assistant Professor Ropp
67-68. The Background of Modern European Civilization.-6 s.h.
Associate Professor Nelson
91. Political and Social History of the United States to $1865 .-3$ s.h.

Associate Professor Robert; Assistant Professors
Acomb and Still; Dr. Watson and Mr. Van Dusen
92. Political and Social History of the United States since $1865 .-3$ s.h.

Associate Professor Robert; Assistant Professors Acomb and Still; Dr. Watson and Mr. Van Dusen
101-102. Early European Civilization.-6 s.h.
Assistant Professor Quynn
105-106. English Constitutional History.-6 s.h.
Assistant Professor Hamilton
107-108. Social and Cultural History of England.-6 s.h. Dr. Ferguson [Not offered in 1946-47]
114. History of the United States since Reconstruction.-Prerequisites: courses 91 and 92. 3 s.h.

Professor Lanning [Not offered in 1946-47]
116-117. The Age of Absolute Monarchy and the French Revolution.6 s.h.

Assistant Professor Acomb
121-122. The Church in American History.-6 s.h. Professor Baldivin [Not offered in 1946-47]
123-124. English History.-6 s.h. Professor Laprade
125-126. Europe in the Nineteenth Century.- 6 s.h.
Assistant Professor Parker
127. History of Latin America Through the Formation of the National Governments.-3 s.h.

Professor Lanving
128. Inter-American Affairs.-3 s.h. Professor Lanning

129-130. European Expansion Overseas.-6 s.h.
[Not offered in 1946-47]
Associate Professor Manchester
Ancient History.-Greek 131-Latin 131-132.
135-136. Europe in the Twentieth Century.-6 s.h. Professor Carrolil 141-142. The Far East from Commodore Perry to Chiang Kai-shek.6 s.h.

Professor Clyde
153-154. The History of the South.-6 s.h.
Professor Sydnor
161-162. Russia from Ivan the Terrible to Stalin.-6 s.h.
Associate Professor Curtiss
for seniors and graduates
203-204. The United States, 1850-1900.-6 s.h. Assoclate Professor Woody [Not offered in 1946-47]
207-208. Social and Cultural History of the United States.-6 s.h.
Associate Professor Robert
209-210. American Constitutional History.-Prerequisites: courses 91 and 92. 6 s.h.
[Not offered in 1946-47]
211. The Teaching of History and the Social Studies (Education 225).3 s.h.

Associate Professor Manchester
215-216. The Foreign Policy and Diplomacy of the United States.-6 s.h. [Not offered in 1946-47]

Professor Clyde

217-218. Europe since 1870.-6 s.h.
Professor Carroll
219-220. The History of the European Proletariat.-6 s.h.
[Not offered in 1946-47]
Professor Carroll
221-222. The Age of Renaissance.-6 s.h. Associate Professor Nelson
223-224. Medieval Institutions and Culture.- 6 s.h.
Assistant Professor Quynn
225-226. The Age of the Reformation.-6 s.h.
[Not offered in 1946-47]
Associate Professor Nelson
230. The Portuguese Empire and the Rise of Brazil.-3 s.h.

Associate Professor Manchester
231. The Hispanic Colonies of the New World.-3 s.h.

Professor Lanning
232. Hispanic Republics of the New World.-3 s.h. Professor Lanning
233. The Cultural and Institutional History of Colonial Hispanic America. -3 s.h.

Professor Lanning
[Not offered in 1946-47]
234. Political and Social Problems in the Hispanic American Republics.3 s.h.

Professor Lanning
[Not offered in 1946-47]
241-242. The Foreign Relations and Diplomacy of the United States in the Pacific Area and the Far East.-6 s.h.

Professor Clyde
261-262. Russia in the Twentieth Century.-6 s.h.
Associate Professor Curtiss
263-264. American Colonial History and the Revolution, 1606-1783.6 s.h.

Associate Professor Woody
[Not offered in 1946-47]
265-266. The Westward Movement in the United States.-6 s.h.
Assistant Professor Still

## NAVY V-12 COURSES

H1-2. Historical Background of Present World War.-May be counted as an introductory course in History. 4 s.h.

N3. Naval History and Elementary Strategy.-3 s.h.
H3. The Ecclesiastical Age.-3 s.h.
H4. A Course Covering the 14th, 15 th, 16 th, and 17 th Centuries to the Close of the Religious Wars in 1648.-3 s.h.

H5. Origins of Modern Europe. 1648-1815.—3 s.h.
H6. Europe in Modern Times from the French Revolution to the Munich Pact.-3 s.h.

H7. American History.-3 s.h.

## DEPARTMENTAL MAJOR

Prerequisites: The Introductory Course in History (1-2 or 51-52).
Major Requirements: Students in the General Group desiring to take a major in history are required to elect twenty-four semester hours in the Department, including six semester hours in the Senior year from courses in the 200 group. Students desiring to take the more advanced courses in American history should elect courses 91 and 92 in the Sophomore or Junior year.

## DEPARTMENTAL HONORS PROGRAM

Students may become candidates for Honors in history who have passed with a grade of "B" or better in their Freshman and Sophomore years courses

91 and 92 in addition to the introductory course in European history.
Candidates for Honors in history are required to take in the Junior year two courses in history offered in the 100 group and to make an average grade of " $B$ " or better on this work. The remaining work in the Junior year will be chosen from related work and other electives with the consent of the Departmental Committee on Honors. In the Senior year, in addition to the equivalent of fifteen semester hours of supervised reading in history, the candidate must elect with the approval of the Departmental Committee on Honors six semester hours of work from the courses in history offered in the 200 group, on which he is required to make a grade of " B " or better, and nine semester hours of related or other elective work.

Of the supervised reading, which shall be done under the immediate supervision of members of the Departmental Committee on Honors, the equivalent of six semester hours shall be devoted to the classical historians such as Herodotus, Thucydides, Tacitus, Livy, Bede, the better-known chronicles, Machiavelli, Gibbon, Hume, Voltaire, Ranke, and others; the equivalent of rine semester hours shall be devoted to selected fields in either American or European history as the student may elect and the Departmental Committee advise.

At the conclusion of the work the student shall be given an oral examination by a committee of three, consisting of the two members of the Departmental Committee on Honors in charge of his supervised reading and another member of the Department selected by the Departmental Committee.

## LATIN AND ROMAN STUDIES

PROFESSOR ROGERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION
1-2. Course for Beginners.- 6 s.h.
Assistant Professor Rose
3. Cicero's Orations.-Prerequisite: two entrance units of Latin. 3 s.h.

Assistant Professor Rose
4. Vergil's Aeneid.-Prerequisite: three entrance units and Latin 57 taken in the semester preceding admission to the course, unless Latin 3 was taken. 3 s.h.

Assistant Professor Rose
51. Latin Prose.-3 s.h.

Professor Rogers
Professor Rogers
52. Latin Poetry.-3 s.h.
53. Sallust and Tacitus.-Prerequisite: Latin 51-52 or an equivalent. 3 s.h. Assistant Professor Rose
54. Catullus.

Assistant Professor Rose
57. Sight Reading in Classical Latin.-1 s.h. Assistant Professor Rose
58. Sight Reading in Medieval Latin.-Prerequisite: at least one of the following courses: Latin $3,4,51,52$, and 57 , or an equivalent. 1 s.h.

Assistant Professor Rose
65-66. Latin Prose Composition.-2 s.h.
101. Tactitus and Suetonius.-3 s.h.

Assistant Professor Rose
Professor Rogers
102. Juvenal and Persius.-3 s.h.

Professor Rogers
103. The Roman Elegiac Poets.
104. Horace: Satires and Epistles.
105. Martial's Epigrams.
106. Letters of Pliny the Younger.
107. Livy: Ab Urbe Condita.
108. Cicero's Letters.
109. Materials and Methods.-Prerequisite: eighteen approved semester hours of college Latin, including courses 51-52, 53-54, or equivalent courses. 3 s.h.

Assistant Professor Rose
111-112. Roman Literature in English Translation.-3 s.h.
Assistant Professor Rose
113-114. Roman Civilization.
115-116. Art and Architecture of Ancient Rome.
131-132. History of Rome.-6 s.h.
Professor Rogers
203-204. Roman Epic: Ennius, Vergil, Manilius, Lucan, Flaccus, Statius, Silious.-6 s.h.

205-206. Roman Drama.-6 s.h.
207-208. Roman Philosophy.
209-210. Vulgar Latin: Introduction to Romance Philology.
211-212. Roman Oratory.-6 s.h.
Professor Rogers
215. Roman Art and Archaeology.
216. Topography and Monuments of Ancient Rome.

NAVY V-12 COURSES
Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language $3-4$ may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses.
DEPARTMENTAL MAJOR
Prerequisites: Latin 1-2, 3-4, or acceptable equivalents.
Major Requirements: Latin 51-52, 53-54, 65-66, six semester hours in courses numbered 101-108, and in the senior year six semester hours in courses of the 200 -group.

Majors are recommended to elect course 131-32, History of Rome.
Majors who contemplate graduate work are reminded of the necessity of Greek, German, and French for such study.

## LAW COURSES FOR ACADEMIC STUDENTS

The first-year program of the Law School will include the following courses:

SUMMER SEMESTER, 1946

| Subject s.i. |  | Semester, | Semester, |
| :---: | :---: | :---: | :---: |
| Chattel Transactions ....... 4 |  | 1946 | 1947 |
| Criminal Law ............. 3 | Subject | s.f. | s.f. |
| Introduction to Procedure . . 3 | Chattel Transactions |  | 4 |
| Torts ...................... . 5 | Contracts | 4 | 4 |
|  | Criminal Law |  | 3 |
| 15 | Introduction to Procedure .... | $\ldots .$ |  |
|  | Legal Research and |  |  |
|  | Writing ......... | 2 | 2 |
|  | Possessory Estates | 3 |  |
|  | Torts ........ |  | 2 |
|  |  | 15 | 15 |

## MATHEMATICS

PROFESSOR GERGEN，CHAIRMAN；PROFESSOR ELLIOTT，DIRECTOR OF UNDERGRADUATE STUDIES；ASSOCIATE PROFESSOR DRESSEL，SUPERVISOR OF FRESHMAN INVTRUC－

TION゙；PROFESSORS CARLITZ，RANKIN，ROBERTS，AN゙D THOMAS；ASSISTANT PROFESSORS HICKSON，PATTERSON，AN゙D WADE；AN゙D ASSISTANTS
1．Intermediate Algebra．－Prerequisite：one unit in algebra and one unit in geometry． 3 s．h．

Staff
2．Plane Trigonometry．－Prerequisite：Mathematics 1 ，or one and one－half units in algebra and one unit in geometry． 3 s．h．

Staff
5．College Algebra．－Prerequisite：Mathematics 1，or one and one－half units in algebra and one unit in geometry． 3 s．h．

Staff
15．Spherical Geometry and Trigonometry．－Prerequisite：Mathematics 2 and 5． 3 s．h．

Staff
16．Mathematics of Investment．－Prerequisite：Mathematics 5． 3 s．h．
Staff
50．Analytic Geometry．－Prerequisite：Mathematics 2 and 53 or 4 s．h． Staff
51－52．Calculus．－Prerequisite：Mathematics 50． 6 s．h．Staff
59－60．Calculus．－Prerequisite：Mathematics 50． 8 s．h．Staff
63．Nomography．－Prerequisite：Mathematics 50． 3 s．h．
Professor Thomas
112．Mathematical Method．－3 s．h．
Professor Thomas
124．Statistics．－Prerequisite：Mathematics 51－52 or 59－60． 3 s．h． Assistant Professor Hickson
125．Elementary Theory of Equations．－Prerequisite：Mathematics 51－52 or 59－60． 3 s．h．Professor Thomas

131．Elementary Differential Equations．－Prerequisite：Mathematics 51－ 52 or 59－60． 3 s．h．

Staff
139－140．Second Course in Calculus．－Prerequisite：Mathematics 51－52 or 59－60． 6 s．h．

Professor Elliott
158．Finite Differences．－Prerequisite：Mathematics $51-52$ or $59-60$ ． 3 s．h．
Professor Carlitz
160．Elementary Solid Analytic Geometry．－Prerequisite：Mathematics 51－52 or 59－60． 3 s．h．

Professor Carlitz
FOR SENIORS AN゙D GRADUATES
201．History of Mathematics．－Prerequisite：Mathematics 51 or 59． 3 s．h．
Professor Rankin
204．Teaching of Mathematics．-3 s．h．
Professor Kankin
227－228．Theory of Numbers．－Prerequisite：Mathematics 51－52 or 59－60． 6 s．h．

Professor Carlitz
229－230．Algebràic Numbers．－Prerequisite：Mathematics 125． 6 s．h．
Professor Carlitz
235－236．Modern Algebra．－Prerequisite：Mathematics 51－52 or 59－60． 6 s．h．

Professor Carlitz
250．Modern Geometry．－3 s．h．
Professor Thomas
255－256．Projective Geometry．－Prerequisite：Mathematics 51－52 or 59－60． 6 s．h．

Professor Thomas

271-272. Introductory Topology.--Prerequisite: Mathematics 51-52 or 5960. 6 s.h.

Professor Roberts
275. Probability.-Prerequisite: Mathematics $51-52$ or $59-60$. 3 s.h.

Associate Professor Dressel
285-286. Mathematical Analysis for Physicists.-Prerequisite: Mathematics 51-52 or 59-60. 6 s.h. Associate Professor Dressel
287. Mathematical Logic.-3 s.h.
288. Foundations of Mathematics.-3 s.h.

Professor Carlitz
Professor Carlitz
291-292. Theory of Functions.-Prerequisite: Mathematics 51-52 or 59-60. 6 s.h.

Professor Gergen

## departmental major

A. For the A.B. degree:

Prerequisite: Mathematics 2 and 5.
Major Requirement: Mathematics 50, 51-52 or $59-60$, and twelve semester hours in courses numbered above 100, exclusive of Mathematics 112, 201, 204. B. For the B.S. degree:

Prerequisite: Mathematics 2 and 5.
Major Requirement: Mathematics 50, 51-52 or 59-60, and fifteen semester hours in courses numbered above 60, exclusive of Mathematics 112, 201, 204.

## NAVAL SCIENCE AND TACTICS

PROFESSOR KOWALZYK, CAPTAIN, U. S. NAVY; ASSOCIATE PROFESSOR COXE, COM-
MANDER, U. S. NAVY; ASSISTANT PROFESSORS SMITH, LIEUTENANT COM-
MANDER, U.S.N.R. ; PENCE, LIEUTENANT COMMANDER, U.S.N.R.; MUFFLEY, LIEUTENANT, U.S.N.R.; WEISFLOCK, LIEUTENANT, U.S.N.R.; SEARS, LIEUTENANT, U.S.N.R.; BERTHOLF, LIEUTENANT, U.S.N.R. ; JENK-

INS, LIEUTENANT, U.S.N.R.; SLOAT, LIEUTENANT (J.G.), U.S.N.R. ; WESCHE, LIEUTENANT (J.G.), U.S.N.R.; LUGN, ENSIGN, U.S.N.R. ; GREENE, ENSIGN, U.S.N.R.
Under wartime regulations for the administration of the Naval Reserve Officers' Training Corps, members will be limited to Apprentice Seamen, Class V-12 USNR or USN, who are ordered to this training by the Bureau of Naval Personnel.

Civilian students may enroll in Naval Science courses for college credits with the approval of the University. These students are not actually enrolled in the NROTC, but may participate in local drills with the approval of the Professor of Naval Science and Tactics.

It is anticipated NROTC will revert to a peacetime basis July 1, 1946. If this change occurs, it will modify the paragraphs above.

NS 1-2. Seamanship.-6 s.h. StafF
NS 3. Damage Control and Engineering.-3 s.h.
NS 4-5. Navigation and Nautical Atsronomy.-6 s.h.
Staff

NS 6. Naval Administration and Law.-3 s.h.
Staff

NS 7. Tactics, Aviation and Recognition.-3 s.h.
Staff

NS 8. Ordnance. -3 s.h.
Staff

NS 9. Gunnery.-3 s.h. Staff
NS 10. Communications.-3 s.h. Staff
NS 11. Refresher Course.-3 s.h. Staff

## PHILOSOPHY

PROFESSOR WIDGERY, CHAIRMAN; ASSOCIATE PROFESSOR LEONARD, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR MCLARTY, SUPERVISOR OF FRESHMAN INSTRUCTION: PROFESSORS GILBERT, PATTERSON AND SMITH
For courses marked with an asterisk there is a prerequisite of three hours of philosophy; admission otherwise by permission of the instructor. Sophomores may in general take courses prescribed for Juniors by permission of the instructor.
48. Introduction to Logic and Scientific Method.-3 s.h.

Associate Professor Leonard
95. Introduction to Ethics.-3 s.h.

First semester: Assistant Professor McLarty
Second semester: Professor Gilbert
96. The Development of American Philosophy.-3 s.h.
101. Introduction to Philosophy.-3 s.h.

First semester: Professor Gilbert Professor Widgery Second semester: Professor Patterson
103. Logic.-3 s.h.

Associate Professor Leonard
104. Scientific Methodology.-3 s.h.

Associate Professor Leonard
105. Introduction to the History of Philosophy: Ancient and Medieval.3 s.h.

Professor Patterson
106. Introduction to the History of Philosophy: Modern.-3 s.h.

Professor Widgery
108. Philosophical Ideas in Ancient Greek and Roman Culture.-3 s.h. Assistant Professor McLarty
114. Seventeenth-Century Philosophy, with Special Reference to Spinoza. -3 s.h.

Professor Gilbert
119. Fundamentals of Christian Morality: An Introduction to Christian Ethics.-3 s.h. Assistant Professor McLarty
121. The Philosophy of Plato.-Lectures, readings, and reports. -3 s.h.

Assistant Professor McLarty
FOR SENIORS AND GRADUATES
201-202. The Philosophy of Art. -6 s.h.
Professor Gilbert
[In alternate yéars-offered in 1946-47]
203. The Philosophy of Conduct.*-3 s.h.
205. The Philosophy of History.-3 s.h.

Professor Patterson
[In alternate years-not offered in 1946-47]
208. Political Philosophy.-3 s.h.

209-210. The Philosophy of Religion.-6 s.h.
Professor Patterson
Professor Widgery
[In alternate years-not offered in 1946-47]
211. Philosophy of Civilization.-3 s.h.
[Not offered in 1946-47]
213-214. History of Aesthetics.-6 s.h.
Professor Gilbert
[In alternate years-not offered in 1946-47]
215. Christian Ethics I.-3 s.h.
216. Christian Ethics II.-3 s.h.
217. The Philosophy of Aristotle.*-Prerequisite : course 105.

Assistant Professor McLarty
224. Contemporary Philosophy.-3 s.h.
[Not offered in 1946-47]
226. The History of Ethics.-3 s.h.
[In alternate years-offered in 1946-47]
231-232. Philosophy of Science.-6 s.h.
236. Oriental Philosophy I. -3 s.h.
238. Oriental Philosophy II.-3 s.h. Professor Widgery
[Not offered in 1946-47]
241. Logic.-3 s.h.
242. Scientific Methodology.-3 s.h.

Assuciate Professor Leonard
Associate Professor Leonard

- Professor Widgery

Professor Widgery

Associate Professor Leonard

## RELATED COURSES IN OTHER DEPARTMENTS

Education 200. Introduction to the Philosophy of Education.
Greek 107-108. Plato.-Euripides.
Greek 209-210. Plato.
History 221-222. The Age of the Renaissance.
Mathematics 287. Mathematical Logic.
Mathematics 288. Foundations of Mathematics.
Physics 213-214. Contemporary Physics.
Political Science 223. Political Thought to the Seventeenth Century.
Political Science 224. Modern Political Theory.
Psychology 228. Psychology of Belief.

## DEPARTMENTAL MAJOR

The student is required to take courses amounting to at least eighteen credit hours in the Department. Of these, six must be Philosophy 105-106, Introduction to the History of Philosophy; and six must be from courses in the 200 series. The student is advised to consult with an instructor in the Department as to the courses most suitable to fit in his general plan of study.

## DEPARTMENTAL HONORS PROGRAM

For details the student should consult the Chairman of the Department.

## PHYSICS

PROFESSOR NIELSEN, CHAIRMAN; PROFESSOR HATLEY, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR CARPENTER, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS NORDHEIM AND SPONER; ASSOCIATE PROFESSORS CONSTANT AND GORDY; MR. SMITH .

1-2. Introductory Physics.-8 s.h.
Associate Professor Carpenter; Professor Hatley, and Assistants
51-52. General Physics.-Prerequisite: Mathematics 2-5 or equivalent (Mathematics 5 may be taken concurrently). 10 s.h.

> Professor Hatley; Associate Professor Carpenter; and Assistants

101-102. Intermediate Physics.-Prerequisites: Physics 1-2 or 51-52 or equivalent, and a course in differential and integral calculus which may be taken concurrently. 8 s.h. Professor Nielsen

A course in general college physics, Physics 101-102 or equivalent validated by examination, and a course in differential and integral calculus are prerequisites to all courses numbered 200 and above.
201. Mechanics.-3 s.h.

203-204. Electricity and Magnetism.-6 s.h.
Associate Professor Constant and Professor Nielsen
205. Spectroscopy.-4 s.h.

Associate Professor Gordy and Professor Sponer
207. Sound and Acoustics.-3 s.h. Associate Professor Constant and

Professor Nielsen
213-214. Contemporary Physics.-8 s.h.
Associate Professor Constant and Professor Nielsen
217-218. Advanced Physics Laboratory.-2-6 s.h.
The Staff
219. Electron Tubes and Their Application.-Prerequisite: Physics 203204 or equivalent. 4 s.h.

Professor Nielsen
221-222. Introduction to Theoretical Physics.-8 s.h.
Associate Professor Constant
225-226. Elementary Investigations.-3-6 s.h.
The Staff

## NAVY V-12 COURSES

PH1 and PH2. General Physics.-May be substituted for Physics 1-2.
PH3-4. Mechanics and Heat.-7 s.h.
PH5-6. Theory of Electrical Measurements.-5 s.h.
PH7. Electricity and Magnetism I.-3 s.h.
PH10. Wave Motion and Sound.-5 s.h. May be substituted for Physics 207.

PH11. Analytical Mechanics and Thermodynamics.-4 s.h.
PH12. Electron Physics.-May be substituted for Physics 213. 3 s.h.
PH13. Optics.-5 s.h.
PH14-15. Electronics.-May be substituted for Physics 219. 7 s.h.

## DEPARTMENTAL MAJOR

A. For the A.B. degree:

Prerequisites: Physics 1-2 or 51-52 or equivalent, and Mathematics 2-5.
Major Requirements: Eighteen to twenty-four hours in courses approved by the Department, $10-16$ hours of which must be in the 200 group.
B. For the B.S. degree:

Prerequisites: Physics 1-2, or 51-52 or equivalent, Chemistry 1-2 and Mathematics 2-5 or equivalent.

Major Requirements: Not less than twenty-four hours in courses approved by the Department, not less than 16 hours of which must be in the 200 group.

## Duke University-The Colleges <br> DEPARTMENTAL HONORS PROGRAM

Prerequisites: Physics 1-2 or 51-52, or equivalent and 101-102 or equivalent. Mathematics six semester hours and Chemistry 1-2.

Honors Program: 18 semester hours of Physics in the 200 group; Mathematics 131 ; electives: twenty-five semester hours or enough to satisfy the requirements for graduation, subject to the approval of the Departmental Honors Committee. Of these, at least six semester hours must be either a course in Geology, Botany or Zoology, or an advanced course in Chemistry or Mathematics.

In addition, the student will arrange with his adviser for the performance of a limited number of elementary physical investigations. This will consist of both readings and experimental work and in general will constitute a survey of the classical and modern aspects of physics for which ten semester hours credit will be allowed.

At the end of both Junior and Senior years, the student will be given both an oral and a written examination in the field of physics.

## POLITICAL SCIENCE

PROFESSOR WILSON, CHAIRMAN; PROFESSOR RANKIN, ACTING CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES ; PROFESSORS COLE AND VON BECKERATH ; ASSOCIATE PROFESSORS GIBSON, HALLOWELL, LINEBARGER AND SHIPMAN; ASSISTANT PROFESSOR SIMPSON AND VISITING ASSISTANT PROFESSOR STURM ; AND MESSRS. STALVEY AND STEWART
21. Principles of Government.-3 s.h.

Professor von Beckerath
22. Governmental Problems in International Relations.-3 s.h.

Professor von Beckerath
61-62. American Government and Politics.-6 s.h.
Professors Rankin, Wilson and Cole; Assocíate Professors Gibson, Hallowell, Linebarger and Shipman ; Assistant Professor Simpson and Visiting Assistant Professor Sturm; and Messrs. Stalvey and Stewart
111. Contemporary Problems in Far Eastern Politics.-3 s.h.

Associate Professor Linebarger
123. American Political Theory.-3 s.h. Associate Professor Hallowell
125. American Political Parties and Practical Politics. 3 s.h.

Assistant Professor Simpson
135. The British Dominions.-3 s.h.

Professor Cole
136. Major European Governments.-3 s.h.

Professor Cole and Associate Professor Hallowell
141. Public Regulation.-3 s.h.

Assistant Professor Simpson
151-152. Spanish-American Political Institutions.-6 s.h.
Associate Professor Gibson
172. Government and Agriculture.-3 s.h.
174. Politics and Economics.-3 s.h.

Professor von Beckerath
Professor von Beckerath
207. American Constitutional Law and Theory.- 3 s.h.

Professors Wilson and Rankin
209. State and Local Government in the United States.- 3 s.h.

Professor Rankin
211. Political Institutions of the Far East.-3 s.h.

Associate Professor Linebarger
212. International Politics of the Far East.-3 s.h.

Associate Professor Linebarger
223. Political Thought to the Seventeenth Century.-3 s.h.

Professor 1 Iilson and Associate Professor Hallowell
224. Modern Political Theory- 3 s.h.

Professor Wilson and Associate Professor Hallowell
225. Comparative Government.-3 s.h. Professor Cole
226. Comparative Government.-3 s.h.

Professor Cole
227-228. International Law.-6 s.h.
Professor Wilson
229. Recent and Contemporary Political Theory.-3 s.h.

Professor Cole and Associate Professor Hallowell
230. American Political Institutions.-3 s.h.

Professor Rankin
241-242. The Administrative Process.-6 s.h.
[Not offered in 1946-47] Associate Professor Shipman
244. Administrative Law.-3 s.h. Associate Professor Shipman
[Not offered in 1946-47]
252. Spanish-American Constitutionalism.-3 s.h.

Associate Professor Gibson
271. Sociopolitics and Capitalism.-3 s.h.

Professor von Beckerath
291. Municipal Government.-3 s.h.

Professor Rankin
Professor Rankin

## defartmental major

Prerequisite: Political Science 61-62.
Major Requirements: Eighteen semester hours of work in the Department above course 61-62, including at least nine semester hours in Senior-Graduate courses.

PSYCHOLOGY
PROFESSORS LUNDHOLM, CHAIRMAN; PROFESSORS ADAMS, RIIINE, AND ZENER; ASSISTANT PROFESSOR KOCH; VISITING ASSISTANT PROFESSOR ANSBACHER
91. Introduction to Psychology.-3 s.h.

Professor Zener; Assistant Professor Koch;
Visiting Assistant Professor Ansbacher
96. Applied Psychology.-3 s.h.

Visiting Assistant Professor Ansbacher
104. Comparative Psychology.-3 s.h.

Professor Adams
106. Abnormal Psychology.-3 s.h.

Professor Lundholm
110. Applied Social Psychology.--3 s.h.

Assistant Professor Koch
[Not offered in 1946-47]
111. Advanced General Psychology: Learning, Memory, Perception, Thinking.-3 s.h.

Professor Zener
[Not offered in 1946-47]
112. Advanced General Psychology: Action, Motivation, Emotion.-3 s.h. [Not offered in 1946-47]

Professor Zener
115. Psychology of Personality.-3 s.h.

Professor Rhine
116. Psychology of Adjustment.-3 s.h.
[Not offered in 1946-47]
122. Psychology of Aesthetics.-3 s.h.
128. Psychology of Belief.-3 s.h.
[Not offered in 1946-47]
203. Conation and Our Conscious Life.-3 s.h.
204. Motivation and Learning.-3 s.h.
206. Social Psychology.-3 s.h.

Professor Adams; Assistant Professor Koch
207. Psychology of Memory, Thinking, Perceiving.-3 s.h.
[Not offered in 1946-47]
Professor Zener
209. Experimental Methods in Human Psychology.-4 s.h.

Professor Zener
212. Physiological Psychology.-3 s.h.
215. Developmental Psychology.-3 s.h.
223. Abnormal Psychology.-3 s.h.

Professor Zener
Professor Adams
226. Psychology: Historical and Theoretical.-3 s.h. Professor Zener

231-232. Introduction to Research.-2 or $3 \mathrm{~s} . \mathrm{h}$. for one semester.
Professors Adams, Lundholm, Rhine, and Zener; Assistant Professor Koch

## NAVY V-12 COURSES

PS1. Psychology I-General.-May be substituted for Psychology 91. 3 s.h.

PS2. Psychology II-Abnormal.-May be substituted for Psychology 106. 3 s.h.

PS3. Social Psychology.-May be substituted for Psychology 110. 3 s.h. DEPARTMENTAL MAJOR

Prerequisites: Psychology 91 and Zoology 1 and 2 or equivalent in biology.
Major Requirements: Eighteen semester hours in psychology in addition to Psychology 91, at least six semester hours of which must be taken in SeniorGraduate courses.

## RELIGION

PROFESSOR MYERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS CANNON, CLARK, ORMOND, SPENCE, AND STINESPRING; ASSOCIATE PROFESSOR CRUM ; AND MRS, SPENCE

1. The English Bible.-3 s.h. Professors Miers and Ormond; Associate Professor Crum; and Mrs. Spence
2. The English Bible.-3 s.h. Professor Ormond; Associate Professor Crum; and Mrs. Spence
3. The History of the Hebrew People.-3 s.h.

Professor Myers; Associate Professor Crum; and Mrs. Spence
52. New Testament Life and Literature. -3 s.h.

Professor Myers; Associate Professor Crum; and Mrs. Spence
101. The Social Teachings of the Prophets and Jesus. -3 s.h.

Professor Ormond
102. The Christian Church in the Social Order.-3 s.h. Professor Ormond
103. The Prophets of the Old Testament.-3 s.h.
Professor Myers
104. The History and Religion of the Jews to the Roman Period.-3 s.h. Professor Myers
114. The Life and Teachings of Jesus. -3 s.h.

Professor Myers
Mrs. Spence
163. Religious Education of Children.-3 s.h.

Professor Spence
167. Contemporary Religious Problems.-3 s.h.
168. Masterpieces of Great Religious Literature.-3 s.h.
[Old number SR.270.]
Professor Spence
169. Character Problems.-3 s.h.

Associate Professor Crum
170. Religion and the Family.-3 s.h.

Associate Professor Crum
181. The Nature and Early Development of Religion.-3 s.h.

Professor Cannon
182. Living Religions of the World.-3 s.h.

Professor Cannon
183. The Religious and Social Contributions of the World's Great Re-ligions.-3 s.h.

Professor Spence
193. A Study of Materials Suitable for Public School Courses in Religion and Ethics.- 3 s.h.

Associate Professor Crum
201-202. First Hebrew.-6 s.h.
Professor Stinespring
207-208. Second Hebrew.-6 s.h.
Professor Stinespring
211-212. Hellenistic Greek.-6 s.h.
Professor Clark
265. Religious Drama.-3 s.h.

Professor Spence
268. Religious Drama Construction and Production.-3 s.h.

Professor Spence

## DEPARTMENTAL MAJOR

Prerequisite: Religion 1-2, or 51-52.
Major Requirements: A major in the Department of Religion consists of eighteen semester hours of work, exclusive of courses primarily for Freshmen, selected with the approval of the instructor under whose supervision the student does his major work.

## departmental honors program

General Rules:
I. The Departmental Honors Program constitutes the work of the Honors student during the Junior and Senior years. This program shall be the equivalent of sixty semester hours of work.
II. The minimum amount of work that may be taken in the Department of Religion shall be the equivalent of twenty-four semester hours, and the maximum shall be the equivalent of thirty-six semesters hours. Of this, the work done in the Honors tutorials shall count fifteen hours, six hours for the Junior year, six hours for the Senior year, and three hours for the comprehensive examination at the end of the Senior year.
III. The related work, which shall constitute at least two fifths of the Honors program, that is, the equivalent of twenty-four semester hours, must be distributed among not less than two departments, unless the departmental committee gives special permission for the student to take his related work in one department.

## Prerequisite:

The minimum requirement for admission to Honors in Religion is the completion of a course in Religion during the Sophomore year on which the student makes at least a grade of "B."
Normal Program:
The normal program for the Honors student in the Junior year shall consist of the Honors tutorial, two courses in the Department of Religion, and two courses in related departments; in the Senior year the work shall consist of the Honors tutorial, one and one-half courses in Religion, and two in related departments.
General Honors Examinations:
Two comprehensive written examinations and a supplementary oral examination will be held at the end of the Senior year to test the student's knowledge of the special field in which he has done his Honors work.

## ROMANCE LANGUAGES

PROFESSOR WEBB, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR DAVIS, SUPERVISOR OF FRESHMAN INSTRUCTION IN FRENCH AND SPANISH; PROFESSORS COWPER, JORDAN, AND LUNDEBERG; ASSOCIATE PROFESSOR WALTON; ASSISTANT PROFESSORS BRIDGERS, DOW, LAIDLAW, NICHOLS, PREDMORE, QUYNN, RAYMOND AND YOUNG; SRA. DE GUERRA, MRS. DILLINGHAM, MME. DOW AND MR. SLAY

## FRENCH

1-2. Elementary French.-6 s.h.
Professors Cowper and Webb; Associate Professor Walton; Assistant Professors Dow, Laidlaw, Predmore, Raymond and Young; Mr. Slay
3-4. French Prose.-Prerequisite: French 1 and 2, or two years of highschool French. 6 s.h.

Professors Cowper and Jordan; Associate Professor Walton; Assistant Professors Bridgers, Dow, Laidlaw and Young
51-52. Introduction to French Literature.-Prerequisite: French 3 and 4 or equivalent. 6 s.h.

Professors Cowper, Jordan and Webb; Associate Professor Walton; Assistant Professor Young
55. Exercises in Spoken French.-1 s.h
56. Exercises in Spoken French.-1 s.h.
107. French Composition.-3 s.h.
108. The French Romantic Movement.-3 s.h.
110. Introduction to the Poetical Works of Victor Hugo.-3 s.h.

Assistant Professor Dow
111. French Drama since 1850.-3 s.h. Assistant Professor Young
[ Not offered in 1946-47]
112. French Drama since 1850.-3 s.h. Assistant Professor Young
[Not offered in 1946-47]
113. French Drama of the Seventeenth Century.-3 s.h.

Assistant Professor Raymond
115. Masterpieces of Balzac.-3 s.h.

Assistant Professor Bridgers
116. Balzac and His Age.-3 s.h.

Assistant Professor Bridgers
127. Advanced French Composition.-Prerequisite: French 107 or equivalent. 3 s.h.

Mme. Dow
128. Advanced French Composition.-Prerequisite: French 107 or equivalent. 3 s.h. Mme. Dow
129-130. French Readings on Great Men and Events in the French Tradi-tion.-Prerequisite : French 51 or 52 or equivalent. 6 s.h.

Associate Professor Walton
213. French Classicism.-3 s.h. Assocrate Professor Walton
214. French Classicism.-3 s.h. Associate Professor Walton

215-216. The Modern French Novel.-6 s.h. Professor Jordan
217. French Phonetics.-Prerequisite: 3 s.h. from courses 107 or 127-128. 3 s.h.

Professor Webb
218. Materials and Methods.-Prerequisite: French 107. 3 s.h.

Professor Webb
219. Old French.-3 s.h.

Professor Cowper
220. Old French.-3 s.h.

Professor Cowper
227. French Poetry since Théophile Gautier.-3 s.h.

Associate Professor Walton
229. Survey of Eighteenth-Century Literature.-3 s.h. Professor Cowper
232. Rousseau and the Beginnings of Romanticism.-3 s.h.

Professor Cowper
233. Main Currents of Modern French Literature.-3 s.h.
[Not offered in 1946-47]
Professor Webb
ITALIAN
181-182. Italian.-6 s.h.
Professor Webb
romance literature in translation
191. Romance Literature of the Renaissance in Translation.-3 s.h.

Assistant Professor Bridgers
192. Romance Literature of the Renaissance in Translation.-3 s.h.

Assistant Professor Bridgers
SPANISH
1-2. Elementary Spanish.-6 s.h.
Assistant Professors Bridgers, Dow, Laidlaw, Predmore and Raymond; Mrs. Dillingham and Mr. Slay
3-4. Intermediate Spanish.-Prerequisite: Spanish 1-2 or two years of high-school Spanish. 6 s.h.

Assistant Professors Bridgers, Davis, Dow, Nichols, Predmore, and Raymond; Sra. de Guerra
61-62. Special Oral Section.-6 s.h.
Mrs. Dillingham
63-64. Special Oral Section.-6 s.h.
Mrs. Dillingham
65. Introduction to Modern Spanish Literature.-Prerequisite: Spanish $3-4$ or equivalent. 3 s.h.

Professor Lundeberg; Associate Professor Davis; Assistant Professor Bridgers; and Sra. de Guerra
66. Introduction to Spanish Literature of the Golden Age.-Prerequisite: Spanish 65 or equivalent. 3 s.h.

Professor Lundeberg; Associate Professor Davis; and Sra. de Guerra
68. Introduction to Spanish-American Literature.-3 s.h.

Assistant Professor Bridgers and Sra; de Guerra
Spanish 65-66 or 65-68 are the basic prerequisites to all higher courses.
71. Elementary Conversation.-Prerequisite: completion of Spanish 4 or equivalent and approval of instructor. 1 s.h.

Mrs. Dillingham
72. Elementary Conversation.-1 s.h.

Mrs. Dillingham
155. Survey of Spanish-American Literature.-Prerequisite: Spanish 6566 or special permission. 3 s.h.

Assistant Professor Nichols
156. Survey of Spanish-American Literature.-Prerequisite: Spanish 6566 or special permission. 3 s.h. Assistant Professor Nichols

157-158. The Modern Spanish Theater.-Prerequisite: Spanish 65-66 or special permission. 6 s.h.
[Not offered in 1946-47]
173. Advanced Oral Spanish.-Prerequisite: Spanish 65-66 and 71-72 or equivalent. $3 \mathrm{~s} . \mathrm{h}$. Sra. de Guerra
174. Advanced Spanish Diction.-Prerequisite: Spanish 173 with minimum grade of C. 3 s.h.

Sra. de Guerra
(Enrollment limited to 18)
253. Spanish Phonetics.-Prerequisite: Spanish 65-66. 3 s.h.

Professor Lundeberg
255-256. Studies in Spanish-American Literature.-6 s.h.
257-258. Old Spanish Language and Literature.-6 s.h.
Associate Professor Davis
260. Advanced Syntax and Composition.-Prerequisite: Spanish 65-66. 3 s.h. Professor Lundeberg
261-262. Modern Spanish Novel.-Prerequisite: 6 s.h. from courses 155 to 158 inclusive, or $65-66$ with permission. 6 s.h.

Professor Lundeberg
265. Golden Age Literature: Cervantes.-Prerequisite: 6 s.h. from courses 155 to 158 inclusive or 65-66 with permission. 3 s.h. Professor Lundeberg
[Not offered in 1946-47]
266. Golden Age Literature: Golden Age Drama.-Prerequisite: 6 s.h. from courses 155 to 158 inclusive, or 65-66 with permission. 3 s.h.
[Not offered in 1946-47]
Professor Lundeberg

## NAVY V-12 COURSES

Foreign Language 1-2 may be substituted for a first-year language.
Foreign Language 3-4 may be substituted for a second-year language.
Foreign Language 5, 6, and 7 may be substituted for third-year courses. DEPARTMENTAL MAJOR
Prerequisites: French 51-52, or equivalent, for French. Spanish 65-66, or 65-68, or equivalent, for Spanish.

Major Requirements: In French, eighteen semester hours of work must be completed in courses numbered 107 or above and must include: (a) six semester hours from the group 107, 127-128, 217; (b) six semester hours of literature in courses numbered 213 to 233.

In Spanish, eighteen semester hours of work must be completed in the courses numbered above 100 and must include a minimum of six semester hours in the courses 253-266.

Students desiring the recommendation of the Department for the teaching of French will take, in addition, course 218.

## DEPARTMENTAL HONORS PROGRAM

Prerequisites: Completion of $51-52$ by the end of the Sophomore year in a manner satisfactory to the Departmental Committee.

Honors work in French includes:
(a) Training in the use of written and oral French; composition, résumé, and literary commentary in French. Three semester hours each semester of Junior and Senior years, total twelve semester hours.
(b) Readings in French literature.
(1) Survey of chief authors. Three semester hours each semester or twelve semester hours.
(2) Genre studies beginning with the modern novel. Three semester hours each semester or twelve semester hours.
(c) Comprehensive examination.
(d) Related work: Twenty-four semester hours.

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, DIRECTOR OF GRADUATE AND UNDERGRADUATE STUDIES; PROFESSORS HART AND THOMPSON; ASSOCIATE PROFESSORS

GILLIN AND SCHETTLER
91-92. General Sociology.-6 s.h.
Professor Jensen and Associate Professor Schettler
101. General Sociology.-5 s.h.
[Not offered in 1946-47]
102. General Sociology.-5 s.h.
[Not offered in 1946-47]
109. Sociology of the South.-Prerequisite: course 91-92, 101 or 131-132. 3 s.h.

Professor Thompson
111. Introduction to Child Welfare.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Jensen
114. Race Relations.-Prerequisite : course 91-92, 101 or 131-132. 3 s.h. Professor Thompson
121. Personality and Human Values.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h.
122. Personality and Culture.-Prerequisite: Sociology 91-92, 101 or 131132. 3 s.h.
125. Social Control and Social Change.-3 s.h.

Associate Professor Schettler
126. Sociology of the Professions and Occupations.-3 s.h.

Associate Professor Schettler
131. General Anthropology.-3 s.h.
132. Cultural Anthropology.-Prerequisite : course 91-92, 101 or 131. 3 s.h.
205. Social Pathology.-Prerequisite: course 91-92, 101 or 131-132. 3 s.h. Professor Jensen
206. Criminology.-Prerequisite : course 91-92, 101 or 131-132. 3 s.h.

Professor Jensen
212. Child Welfare.-Prerequisite: course 91-92, 101 or 131-132. 3 s.h.
[Offered in Summer Session, 1946]
Professor Jensen
213. Constructive Social Policies.-Prerequisite: course 91-92, 101 or,131132. 2 s.h. Professor Jensen
[Not offered in 1946-47]
215. Rural Sociology.-Prerequisite : course 91-92, 101, or 131-132. 3 s.h.

Professor Thompson
216. Urban Sociology.-Prerequisite: course $91-92,101$, or 131-132. 3 s.h. Professor Thompson
217. Race and Culture.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h. Professor Thompson
218. Community and Society.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Thompson
225. Statistical Methods in Sociology.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h.

Professor Hart
227. Emigration and Immigration.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h.
[Not offered in 1946-47]
236. Social Ethics.-3 s.h.

Professor Hart
237. Indians of North America.-Prerequisite: course 131. 3 s.h.
238. Anthropological Backgrounds of Latin America.-Prerequisite : course 131. 3 s.h.
239. Acculturation and Cultural Synthesis.-3 s.h.
240. The Peoples of Africa.-Prerequisite: course 131. 3 s.h.
242. Marriage and the Family.-Prerequisite : course 91-92, 101, or 131-132. 3 s.h.

Professor Hart
251. Special Problems in Social Pathology.-Prerequisite: course 205 or its equivalent. 1 to 3 s.h.

Professor Jensen
252. Education and Social Control.-Prerequisite: course 91-92, 101, or 131-132. 2 s.h.
[Not offered in 1946-47]
281. Social Attitudes and Collective Behavior.-3 s.h.

Associate Professor Schettler
282. Public Opinion.-3 s.h.

Associate Professor Schettler

## NAVY V-12 COURSES

S1. Sociology I.-Anthropology. 3 s.h.
S2. Sociology II.-May be substituted for Sociology 91. 3 s.h.
DEPARTMENTAL MAJOR
Students desiring to take a major in sociology are required to complete course 91-92 or 101 or 102 or 131-132 and twelve additional hours in the Department, at least six of which must be from courses numbered 200 or over.

## ZOOLOGY

PROFESSOR GRAY，CHAIRMAN゙ AND DIRECTOK OF UN゙DERGRADUATE STUDIES；ASSOCIATE PROFESSOR BOOKHOUT，SUPERVISOR OF FRESHMAN INSTRUCTION；ASSISTANT PROFESSOR JEFFERS，SUPERVISOR OF FRESHMAN INSTRUCTION（IVOMAN＇S COLLEGE）；PROFESSORS HARGITT，PEARSE；ASSISTANT PROFESSORS JOHNSON AND WHARTON；DRS．HORN゙ AN゙D MAGALHAES；MR． BOYER；MISS JONES；AND ASSISTAN゙TS

UNDERGRADUATE COURSES
1．General Zoology．－4 s．h．Associate Professor Bookhout；Assistant Professor Jeffers；And Staff
2．Animal Biology．－Prerequisite：Zoology 1． 4 s．h．
Professor Gray and Dr．Magalhaes；and Staff
53．Comparative Vertebrate Anatomy．－Prerequisites：Zoology 1 and 2. 4 s．h．

Professor Gray；Dr．Magalhaes and Miss Jones
92．General Embryology．－Prerequisite：Zoology 53． 4 s．h． Assistant Professors Jeffers and Johnson；and Miss Jones 109．Evolution．－Prerequisite ：two years of zoology． 2 s．h．

Assistant Professor Johnson
110．Introduction to Genetics．－Prerequisite：one year of zoology． 2 s．h． Assistant Professor Johnson
151．Comparative Physiology．－Prerequisites：Zoology 53 and one year of chemistry． 4 s．h． Dr．Magalhaes

156．Vertebrate Histology．－Prerequisite：Zoology 53． 4 s．h．
Professor Hargitt
161．Animal Parasites．－Prerequisite：one year of zoology． 4 s．h．
Professor Pearse
196．Seminar：Current Developments in Zoology．－Prerequisites：Zoology 53，92，151． 2 s．h．

Staff

## FOR SENIORS AND GRADUATES

204．Advanced Parasitology．－Prerequisite：Zoology 161． 4 s．h．
Professor Pearse
219－220．Special Problems．－4 s．h．
Staff
222．Entomology．－Prerequisite：one year of zoology． 4 s．h．
Professor Gray
224．Vertebrate Zoology．－Prerequisite：Zoology 53． 4 s．h．
Professor Gray
229．Endocrinology．－Prerequisites：Zoology 53，92，and 151． 4 s．h． Assistant Professor Jeffers

274．Invertebrate Zoology．－Prerequisites：Zoology 1 and 2． 4 s．h．
Associate Professor Bookhout
276．Protozoology．－Prerequisites：Zoology 1 and 2． 4 s．h．
Associate Professor Bookhout
related courses，one of which may be counted toward
A MAJOR IN ZOOLOGY
Botany 101．Principles of Heredity．－3 or $4 \mathrm{~s} . \mathrm{h}$ ．
Associate Professor Perry

Botany 103. General Bacteriology.-4 s.h.
Botany 202. Genetics.-4 s.h.
Professor Wolf
Associate Professor Perry
DEPARTMENTAL MAJOR
Prerequisites: Zoology 1 and 2.
Major Requirements: Twenty-four semester hours including courses 53, 92, 151. The remaining twelve hours may be from any other courses for which the student is eligible.

## DEPARTMENTAL HONORS PROGRAM

For admission to candidacy for Honors in zoology a student is expected to have completed zoology courses 1, 2, 53, 92 and not less than eight semester hours of chemistry.

Honors work consists of regular courses and independent study; the program, however, will not be the same for all students. Zoology 151 is required of all zoology majors; the number and nature of other courses to be taken in zoology and all related subjects will depend upon the needs and interests of the student. The usual number of semester courses will be four to six in zoology and six in other subjects in the Natural Science Group.

In addition to regular courses each student shall read in such fields as history of biology and zoological theories, or in special fields, and shall undertake a special research problem under the direction of some member of the Staff whom the student may select. The student may be asked to prepare written reports on his readings and must present a written report on his research problem. Readings and problem count for nine to twelve semester hours.

At the end of the Junior year an examination will be given to test the student's ability to correlate material and to determine his fitness to continue in the Honors Group. At the end of the Senior year a special comprehensive examination covering the entire field of study must be passed.

## THE COLLEGE OF ENGINEERING

\begin{abstract}
ADMISSION
Admission to the College of Engineering of Duke University is on a selective basis, dependent upon the ability, attainments, and character of the applicant. No student is admitted until the Council on Admissions has received for him a scholastic record from school or college, a certificate of vaccination and of good health, and satisfactory evidence of good character and ability. Prospective students and relatives are invited to visit the University and the College of Engineering in particular. This would be advantageous to the applicant since it would enable him to acquaint himself with the facilities of the University, and to discuss possible courses of study.

Certain days are announced in the University Calendar each year for the registration, classification, and sectioning of students. Those students who are admitted later than the dates announced must pay to the Treasurer $\$ 5.00$ additional for the privilege of matriculating.

An applicant for admission to the Freshman Class in engineering must have completed at least fifteen units of preparatory work, partly in required and partly in elective subjects. A unit represents a year of work in a subject in an accredited secondary school, provided the work done in that subject is approximately one fourth of the annual amount of work regularly required in the school.

The subjects in which this credit may be offered and the maximum amount of credit acceptable in each subject are given in the following table:

UNITS
UNITS

| English | Botany |
| :---: | :---: |
| Latin | Zoology |
| Greek | General Biology |
| German | Physical Geography |
| French | General Science |
| Spanish | Agriculture |
| Mathematics | Mechanical Drawing |
| History and Civics | Woodwork, Forging, and |
| Physics | Machine Work |
| Chemistry | Household Economics |
|  | Commercial Subjects ... |

For a detailed explanation of the units in the table above, see the definitions as set forth by the Southern Association of Colleges and Secondary Schools and other regional associations.

## ADMISSION BY CERTIFICATE

Applicants able to submit certificates of proficiency from accredited schools in subjects accepted for admission to the Freshman Class will be
admitted without examination. These certificates must be properly made out on the regular blanks furnished by the University, signed by the principal of the school from which the applicant comes, and presented before or at the opening of the academic year. The applicant must have completed the course of the school from which he comes.

At least nine and one half of the fifteen units required for admission must come from the following:

## Required Units



## Elective Units

In addition to the above required units, sufficient elective units must be offered to make a total of fifteen. It is recommended that these electives be chosen from the following list:


## ADMISSION BY EXAMINATION

Students who present fifteen units for admission from schools not accredited by the University, and students who present the proper units but whose grades are not acceptable, are required to validate their units by entrance examinations in English and in mathematics and such other tests as the University may prescribe, including the test required by the North Carolina College Conference.

Students who have not the required units in English or in mathematics but who are otherwise acceptable must, before admission, clear this deficiency by entrance examinations.

## ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing from other approved institutions under the following conditions: all applicants must have fulfilled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work done in other institutions, and have honorable dismissal from the institutions they previously attended.

[^76]Applicants for advanced standing should present, so far as possible, subjects corresponding to those required at Duke University. Students admitted to advanced standing may not during their first semester elect more than the minimum number of hours required of the class which they enter except by permission of the Dean. Further, in addition to other requirements, a minimum of one full year in residence at Duke University with the satisfactory completion of at least thirty semester hours of work approved for Seniors, with an average grade of " C ," is required of all candidates for the Bachelor's degree.

Students who have transferred from other colleges must, in order to make their provisional classification final, pass during their first year of residence not less than the equivalent of four year-courses with an average grade of "C" or higher.

The date for the registration and classification of students with advanced standing from other institutions is announced in the University Calendar. Students who are admitted later than this date are required to pay to the Treasurer $\$ 5.00$ additional for the privilege of matriculating.

## FRESHMAN WEEK

The week immediately preceding the opening of College is set aside for the induction of Freshmen. During this period health examinations, psychological tests, and placement tests are given in English and mathematics. Sectioning in these two subjects is based on the grades made on the placement tests. The Freshmen are divided into groups for instruction in the use of the Library, in the regulations of the student body, and in all matters pertaining to the adjustment of the individual to a new environment. Attendance upon these exercises is required of all Freshmen.

## SPECIAL STUDENTS

Students of mature age not fully prepared to enter the Freshman Class may be admitted as special students and allowed to enroll for such work as they are prepared to carry. Further, they are required to take fifteen hours of classwork a week.

## FEES AND EXPENSES

Information as to fees and expenses and room accommodations applicable to the College of Engineering is given, along with similar information for Trinity College and the Woman's College, elsewhere in the catalogue under Fees and Expenses.

# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING 

## GENERAL STATEMENT

The studies for the degree of Bachelor of Science in Civil, Electrical, or Mechanical Engineering are designed for students who are preparing for civil, electrical, and mechanical or aeronautical engineering as a profession and lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E. All curricula of the College of Engineering are fully accredited by the Engineers' Council for Professional Development, recognized accrediting agency in the field of engineering education.

Each of these degrees requires one hundred and thirty-eight semester hours of work of which one hundred and twenty must be completed with an average grade of "C." Six semester hours of electives must be taken in the Department of Economics or Political Science. If a foreign language is elected, it must be taken two years unless a student has suffcient entrance credits to enable him to pursue a more advanced course.

Prospective students should note that immediately after the final examinations in May or June a three-weeks course in surveying is given under the direction of the Summer Session. This course is required of all civil engineering students at the end of their Freshman year and is required of all other engineering students before graduation.

Courses described in the Navy V-12 Bulletin No. 101 may be offered in place of certain required courses outlined in this bulletin for the civil, electrical, and mechanical curricula.

## GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

GROUP I
Civil Engineering
Freshman Year

FIRST SEMESTER


17

## Sophomore Year

| Mathematics 59 .................. 4 | Mathematics 60 |
| :---: | :---: |
| Physics 57 ........................ 3 | Physics 58 |
| Economics 51 ..................... 3 | Economics 52 |
| Statics G.E. 57 . .................... 3 | Kinetics G.E. 58 |
| Surveying $61 . . .$. ................ 2 | Steam Engineering M.E. $55 . .$. .... 2 |
| Route Surveying 63 .............. 2 | Route Surveying 64 |
| Physical Education | Physical Education |
| 17 | 17 |
| Junior | Year |
| Strength of Materials 107 ........ 3 | Hydraulics 128 .................. 3 |
| Structures 131 ..................... 4 | Structures 132 ..................... 4 |
| Highway 115 .................... 3 | Materials 118 .................... 3 |
| Electrical Engineering $153 . .$. .... 3 | Electrical Engineering $154 \ldots .$. ... 3 |
| Elective .......................... 3 | Elective ........................... 3 |
| 16 | 16 |

Sanitary Engineering 123
Senior Year ..... 3
Concrete 133 3 Concrete 134
Railroads 119 3 Astronomy-Navigation 112 ..... 3
3
3
Heat Power M.E. 103 3 Heat Power M.E. 104 ..... 3
Mechanical Engineering Lab. 115 1 Mechanical Engineering Lab. 116 ..... 1
Elective 3 Civil Engineering Project 143 ..... 3
2
17 ..... 18
GROUP II
Electrical Engineering
Freshman Year
FIRST SEMESTER SECOND SEMESTER
S.H.
Mathematics 9 ........................... 5 ..... 5
Chemistry 1 4 Chemistry 2 ..... 4 ..... 4English 13 English 2
Physics 17 3 Physics 18 ..... 3
Drawing 1 2 Drawing 2 ..... 23
Physical Education Physical Education
17 ..... 17Three weeks of Surveying S 60 in summer. Credit 3 semester hours.Sophomore Year
Mathematics 59 4 Mathematics 60 ..... 4
Physics 57 3 Physics 58 ..... 3
Statics 57 3 Kinetics-Mechanism 52 ..... 4
Electrical Engineering 51 3 Electrical Engineering 52 ..... 3
Economics 51 3 Economics 52 ..... 3
Steam Engineering 55 2 Physical Education
Physical Education ..... 17
Junior Year
Theory of D. C. Circuits $151 \ldots . .4$ Theory of A. C. Circuits 152 ..... 3
Hydraulics 128
Hydraulics 128 3 Strength of Materials 107-109 3 Strength of Materials 107-109 ..... 4 ..... 4
Electrical Circuits Lab. 161 ........ 1 Electrical Circuits Lab. 162 ..... 1
Heat Power Engineering. 103. 3 Heat Power Engineering 104 ..... 3
Differential Equations 131 3 Electrical Measurements 104 ..... 3
Mechanical Engineering Mechanical Engineering Laboratory 115 1 Laboratory 116 ..... 1
15 ..... 15
Senior Year
A. C. Machinery 257 3 A. C. Machinery 258 ..... 3
Electric Power Trans. 159 3 Electric Power Stations 158 ..... 2
Communication 261 3 Communications 262 ..... 4
D. C. Machinery 155 2 Seminar 166 ..... 1
Electrical Machinery
Laboratory 163 Electrical Machinery Laboratory 164 ..... 1
Seminar 165 1 Electives ..... 6
Electives ..... 6 ..... 17
19
GROUP IIIMechanical EngineeringFreshman Year
FIRST SEMESTER SECOND SEMESTER
S.H. S.H.
Mathematics 9 Mathematics 10 ..... 5
Chemistry 1 4 Chemistry 2 ..... 4
English 1 3 English 2 ..... 3
Physics 17 3 Physics 18 ..... 3
Drawing 1 2 Drawing 2 ..... 2
Physical Education Physical Education$\overline{17}$
Three weeks of Surveying S60 in summer. Credit 3 semester hours.
Sophomore Year
Mathematics 59 ..................... 4 Mathematics, 60 ..... 4
Physics 57 3 Physics 58 ..... 3
Statics, G.E. 57 3 Kinetics-Mechanism 54 ..... 5
Const. Processes 51 3 Steam Engineering 55 ..... 2
Economics 51 3 Economics 52 ..... 3
Physical Education Physical Education
$\overline{17}$
16
Junior Year
Fluid Mechanics 105 3 Machine Design 150 ..... 3
Str. of Materials 107-109 4 Aeronautics 108 ..... 3
Electrical Engg. 153 3 Electrical Engg. 154 ..... 3
Thermodynamics 101 3 Thermodynamics 102 ..... 3
M.E. Lab. 113 1 M.E. Lab. 114 ..... 2
Elective 3 Elective ..... 3
17 ..... 17
Requirements for Degrees ..... 131
Senior Year
Mechanical Option
Machine Design 151 3 Industrial Engg. 158 ..... 3
Int. Comb. Eng. 155 3 Power Plants 162 ..... 3
Heating and Air Cond. 153 3 Refrigeration 154 ..... 3
M.E. Lab. 159 2 M.E. Lab. 160 ..... 2
Seminar 199 1 Seminar 200 ..... 1
Electives 5 Electives ..... 5
17 ..... 17
Senior Year
Aeronautics Option
Machine Design 151 3 Industrial Engg. 158 ..... 3
Int. Comb. Eng. 155 3 Airplane Design 172 ..... 3
Airplane Design 171 3 Airplane Engines 156 ..... 3
Aerodynamics 173 2 Acrodynamics 174 ..... 2
M.E. Lab. 159 2 Aeronautics Lab. 176 ..... 2
Seminar 199 Seminar 200 ..... 1
Elective 3 Elective ..... 3
17 ..... 17

Note: The Aeronautics Option for Senior Mechanical Engineering students will not be offered in 1946-47.

## COURSES OF INSTRUCTION, COLLEGE OF ENGINEERING

PROFESSOR HALL, DEAN; PROFESSOR BIRD, CHAIRMAN, CIVIL ENGINEERING; PROFESSOR SEELEY, CHAIRMAN, ELECTRICAL ENGINEERING; PROFESSOR WILBUR, CHAIRMAN, MECHANICAL ENGINEERING; ASSOCIATE PROFESSORS MEIER AND REED; ASSISTANT PROFESSORS HINTON, KRAYBILL, LEWIS, MACKICHAN, PALMER, THEISS, VAIL, AND WILLIAMS; MESSRS. EGERTON, ERVIN, HAINES, HARDY, JONES, KENYON, NEALE
GENERAL ENGINEERING

1-2. Engineering Drawing.-4 s.h. Staff
5. Descriptive Geometry.-2 s.h.

51-52. Technical Drawing.-6 s.h. [Not offered in 1946-47]
57. Statics.-Prerequisites: courses G.E. 1-2, Mathematics 9 and 10. 3 s.h. Staff
58. Kinetics.-Prerequisites: courses G.E. 57, and Mathematics 59. 3 s.h. Staff
107. Strength of Materials.-Prerequisite : course 57. 3 s.h. - Staff
109. Strength of Materials Laboratory.-1 s.h. Staff
128. Hydraulics.-Prerequisite : course 57. 3 s.h. Staff

151-152. Elements of Cartography.-6 s.h Assistant Professor L. Hall [Not offered in 1946-47]

## CIVIL ENGINEERING

PROFESSORS BIRD AND HAIL; ASSISTANT PROFESSORS PALMER AND WILLIAMS
S60. Plane Surveying.-Prerequisites: G.E. 1 and trigonometry. 3 s.h.
Staff
61. Higher Surveying.-Prerequisite : course S60. 2 or 3 s.h.
Assistant Professor Williams

63-64. Route Surveying.-Prerequisite: course S60. 4 s.h. Staff
70. Civil Engineering Drawing.-Prerequisite : course G.E. 1-2. 2 s.h.

Assistant Professor Palmer
112. Practical Astronomy and Navigation.-Prerequisite: S 60 or with the consent of the instructor. 3 s.h. Professor Bird
115. Highway Engineering.-3 s.h. Professor Bird
118. Materials of Engineering.-Prerequisite: course G.E. 107 or concurrent. 3 s.h. Assistant Professor Williams 119. Railroad Engineering.-Prerequisite : course $63-64.3$ s.h. Professor Bird 120. Railroad Engineering.-Prerequisite : course 63-64. 2 s.h.

Professor Bird
123-124. Sanitary Engineering.-Prerequisite: course G.E. 128. 7 s.h.
Professor Hall
131. Steel Structures-Stresses.-Prerequisite: course G.E. 57. 4 s.h. Professor Bird
132. Steel Structures-Design.-Prerequisites: courses G.E. 107 and 131. 4 s.h. Professor Bird
133. Reinforced Concrete.-Prerequisite : course G.E. 107. 3 s.h.

Professor Bird
134. Advanced Reinforced Concrete.-Prerequisites: courses 133 and 135. 3 s.h.

Professor Bird
135. Soils and Foundations.-Prerequisite : course G.E. 107. 3 s.h.

Professor Bird
137-138. Seminar.-2 s.h.
Staff
143-144. Projects in Civil Engineering.-3-6 s.h. Staff
240. Indeterminate Structures.-Prerequisites: course 131 and ability to read French or German. 3 s.h.

Professor Bird

## ELECTRICAL ENGINEERING

professor seeley; associate professor meier; assistant professors kraybill, mackichan, and vail; mr. egerton

51-52. Survey of Electrical Engineering.-Prerequisites: Freshman mathematics and concurrent physics. 6 s.h.

Associate Professor Meier
104. Electrical Measurements.-Prerequisites: courses 151, 161. E.E. 152, 162 concurrently. 3 s.h.

Professor Seeley
151. Theory of Direct Current Circuits.-Prerequisites: course 51-52, Physics 57-58, Mathematics 59, 60. 4 s.h.

Assistant Professors MacKichan and Vail
152. Theory of Alternating Current Circuits.-Prerequisites: course 151, Mathematics 131. 3 s.h. Assistant Professors MacKichan and Vail

153-154. Principles of Electrical Engineering.-Prerequisite: Physics 5758. 6 s.h. Assistant Professors Kraybill and Vail
155. Direct Current Machinery.-Prerequisites: courses 151, 161-162. 2 s.h. Associate Professor Meier
156. Electric Transportation.-Prerequisites: courses 151, 152, 161-162, or 153-154. 3 s.h.

Assistant Professor Kraybill
157. Industrial Applications of Electrical Equipment.-Prerequisite : course 153-154. 3 s.h.

Associate Professor Meier
158. Electric-Power Stations.-Prerequisites: courses 151, 152, and M.E. 103-104. 2 s.h. Assistant Professor Vail
159. Electric-Power Transmission.-Prerequisites : courses 151, 152. 3 s.h. Professor Seeley
161-162. Electrical Circuits Laboratory.-2 s.h. Assistant Professor Vail 163-164. Electrical Machinery Laboratory.-2 s.h.

Associate Professor Meier
165-166. Electrical Engineering Seminar.-2 s.h.
Assistant Professor Vail and Staff
169. Electron Tubes and Circuits.-Prerequisites: courses 152, 162. 2 s.h.

Professor Seeley
173-174. Projects in Electrical Engineering.-3-6 s.h.
Professor Seeley and Staff
202. Fundamentals of Radio.-Prerequisite: course 153-154. 3 s.h.

Mr. Kraybill

257-258. Alternating Current Machinery.-Prerequisites: courses 152, 155. 6 s.h.

Associate Professor Meier
261. Communication Engineering, Audio Frequency.-Prerequisites: courses 151, 152, Mathematics 131. 3 s.h.

Professor Seeley and Assistant Professor Kraybill
262. Communication Engineering, Radio Frequency.-Prerequisite : course 261. 4 s.h.

Professor Seeley and Assistant Professor Kraybill
263-264. Mathematical Analysis of Electrical Circuits.-Prerequisites: courses 151,152 , and Mathematics 131. 6 s.h.

Professor Seeley

## MECHANICAL ENGINEERING

PROFESSOR WILBUR; ASSOCIATE PROFESSOR REED; ASSISTANT PROFESSORS hinton, lewis, and theiss; messrs. ERVIN, hardy, KENYON, AND NEALE
51. Constructive Processes.-Prerequisite: Chemistry 2. 3 s.h.

Assistant Professor Theiss
52. Kinetics-Mechanism.-Prerequisites: G.E. 2, G.E. 57, Mathematics 59. 4 s.h. Associate Professor Reed and Assistant Professor Lewis
54. Kinetics-Mechanism.-Prerequisites: G.E. 2, G.E. 57, and Mathematics 59. 5 s.h.

Associate Professor Reed
55. Steam Engineering.-Prerequisite: Physics 18. 2 s.h.

Professor Wilbur and Mr. Neale
101-102. Engineering Thermodynamics.-Prerequisites: M.E. 55, Physics 58, and Mathematics 60.6 s.h.

Professor Wilbur and Assistant Professor Hinton
103-104. Heat Power Engineering.-Prerequisites: Mathematics 60, M.E. 55. 6 s.h. Associate Professor Reed and Mr. Kenyon
105. Fluid Mechanics.-Prerequisite: M.E. 54. 3 s.h.

Professor Wilbur and Assistant Professor Hinton
108. Aeronautics.-Prerequisite: M.E. 105. 3 s.h.

Assistant Professor Theiss
113-114. Junior Mechanical Engineering Laboratory.-Prerequisite: M.E. 55. M.E. 101-102 concurrently. 3 s.h.

Assistant Professors Hinton and Theiss; Mr. Kenyon
115-116. Junior Mechanical Engineering Laboratory.-2 s.h.
Assistant Professors Hinton and Lewis; Mr. Neale
150-151. Machine Design.-Prerequisites: G.E. 107, M.E. 51, M.E. 54. 6 s.h. Associate Professor Reed and Assistant Professor Lewis
153. Heating and Air Conditioning.-Prerequisites: M.E. 102 or M.E. 104. M.E. 159 concurrently. 3 s.h. Associate Professor Reed
154. Refrigeration Engineering.-Prerequisites: M.E. 102 or M.E. 104. M.E. 160 concurrently. 3 s.h. Associate Professor Reed
155. Internal Combustion Engines.-Prerequisite: M.E. 101-102. 3 s.h. Assistant Professor Hinton
156. Airplane Engines.-Prerequisite: M.E. 155. 3 s.h.
158. Industrial Engineering.-3 s.h. Assistant Professor Theiss
159. Senior Mechanical Engineering Laboratory.-Prerequisite: M.E. 114. 2 s.h.

Assistant Professors Hinton and Theiss
160. Senior Mechanical Engineering Laboratory.-Prerequisite: M.E. 159. 2 s.h.

Assistant Professors Hinton and Theiss
162. Power Plant Calculations.-Prerequisites: M.E. 101-102 or 103-104. 3 s.h.

Professor Wilbur
171-172. Airplane Design.-Prerequisites: M.E. 150, M.E. 108. 6 s.h.
173-174. Aerodynamics.-Prerequisites: M.E. 105, M.E. 108. 4 s.h.
176. Aeronautics Laboratory.-2 s.h.

197-198. Projects in Mechanical Engineering.-3-6 s.h.
Professor Wilbur and Staff
199-200. Seminar.-2 s.h.
Staff

## NAVY V-12 COURSES

Navy V-12 courses may be substituted for College of Engineering courses as indicated below:
college of engineering
G.E. 1-2. Engineering Drawing.
G.E. 57. Statics.
G.E. 58. Kinetics.
G.E. 107. Strength of Materials.
G.E. 109. Strength of Materials Lab.
G.E. 128. Hydraulics.
C.E. S60. Plane Surveying.
C.E. 63-64. Route Surveying.
C.E. 112. Practical Astronomy and Navigation.
C.E. 115. Highway Engineering.
C.E. 118. Materials of Engineering.
C.E. 123-124. Sanitary Engineering.
(b) Public Water Supply.
(c) Sewerage.
C.E. 131. Steel Structures-Stresses.
C.E. 132. Steel Structures-Design.
C.E. 133. Reinforced Concrete.
C.E. 134. Advanced Reinforced Concrete.
C.E. 135. Soils and Foundations.
E.E. 51-52. Survey of Electrical Engineering.
E.E. 151. Theory of Direct Current Circuits.
E.E. 152. Theory of Alternating Current Circuits.
E.E. 153-154. Principles of Electrical Engineering.

## NAVY V-12

N D1. Engineering Drawing.
N D2. Descriptive Geometry.
N A1. Analytical Mechanics-Statics.
N A2. Analytical Mechanics-Dynamics.
N CE3. Strength of Materials.
N CE4a. Strength of Materials Lab. N CE6. Fluid Mechanics.
N CE1. Plane Surveying.
N CE10. Curves and Earthwork.
N Math. M8. Elementary Navigation and Nautical Astronomy.
N CE17. Highway Engineering.
N CE4. Strength of Materials Lab. I.
N CE14. Water Supply.
N CE13. Sanitary Engineering.
N CE7. Structures I.-Structural Analysis.
N CE9. + Structures III.-Elementary Structural Design in Steel and Wood.
N CE8. Structures II.-Theory of Reinforced Concrete.
N CE11.- Structures IV.-Concrete Structures and Foundations.

N CE15. Soil Mechanics.
N EE1. Electricity and Magnetism.
N EE3. Electric and Magnetic Circuits I.

N EE4. Electric and Magnetic Circuits II.

N EE10, 11. Electrical Engineering I-
Direct-Current Apparatus and Circuits.
E.E. 155. Direct Current Machinery.
E.E. 161-162. Electrical Circuits Lab.

## Electrical Engineering II-

 Alternating-Current Apparatus and Circuits.N EE12a. Direct-Current Machinery and Storage Batteries.

N EE3-4. Electric and Magnetic Circuits I and II.
E.E. 163-164. Electrical Machinery Lab.
E.E. 202. Fundamentals of Radio.
E.E. 257-258. Alternating Current Machinery.
E.E. 261. Communication Engineering, Radio Frequency.
E.E. 262. Communication Engineering, Audio Frequency.
M.E. 51. Constructive Processes.
M.E. 52. Kinetics-Mechanism.
M.E. 54. Kinetics-Mechanism.
M.E. 55. Steam Engineering.
M.E. 101-102. Engineering Thermodynamics.
M.E. 103-104. Heat Power Engineering.
M.E. 105. Fluid Mechanics.
M.E. 108. Aeronautics.
M.E. 113-114. Junior Mechanical Engineering Laboratory.
M.E. 115-116. Junior Mechanical Engineering Laboratory.
M.E. 150-151. Machine Design.
M.E. 154. Refrigeration Engineering.
M.E. 155. Internal-Combustion Engines.
M.E. 158. Industrial Engineering.
M.E. 159. Senior Mechanical Engineering Laboratory.
M.E. 160. Senior Mechanical Engineering Laboratory.
M.E. 162. Power Plant Calculations.

N EE15. Electrical Enginereing Lab.
NEE(5a-6a). Electron Tubes and Circuits Ia and IIa.
N EE13a. Alternating-Current Machinery Ia.
N EE7. High-Frequency Circuits I.
N EE8. High-Frequency Circuits II.
N ME. Mechanical Processes.
N A1. Analytical Mechanics IStatics.
N ME1. Kinematics.
N A1. Analytical Mechanics IStatics.
N ME1. Kinematics.
N ME2. Elementary Heat Power.
N ME4. Thermodynamics I.
N ME4a. Thermodynamics Ia.
N ME3a. Heat Power Ia.
N CE6. Fluid Mechanics.
N ME14. Aerodynamics.
N CE6. Fluid Mechanics.
N ME3a. Heat Power Ia.
N ME15, 16. Mechanical Design I, II.

N ME13. Refrigeration.
N ME11. Heat Power II-InternalCombustion Engines.

N GE3. Industrial Organization. N ME10. Naval Machinery.

N ME11. Heat Power II-InternalCombustion Engines.

N ME12. Heat Power III-Steam Power.
N ME10. Naval Machinery.

## GENERAL REGULATIONS

## TRINITY COLLEGE, WOMAN'S COLLEGE, AND COLLEGE OF ENGINEERING

Under the accelerated wartime program and in keeping with the Navy schedule, Trinity College and the College of Engineering will be operated on semesters of sixteen weeks each, the first semester beginning on or about July 1, the second semester on or about November 1, and the third semester on or about March 1.

The Woman's College will operate as in the past on a two-semester basis, the fall semester opening in the middle of September.

At the close of the third semester on June 30, 1946, all of the undergraduate colleges will be operated on the two-semester plan: the autumn semester and the spring semester will begin and close in accordance with the published calendar of this bulletin.

It is important that all students be present on the first day of the session, for those who are late incur the penalties described in this catalogue under the topic "Admission to College" and below under the sub-topic "Course Cards." Students who enter after the beginning of the semester are marked absent in the work they have missed in the courses to which they are admitted, and these absences carry the same penalty as do other absences from the courses.

## MATRICULATION, REGISTRATION, AND ENROLLMENT

All students must appear before the Committee on Admission and obtain cards for admission. Cards of admission must be presented at the Treasurer's Office at the time of matriculation. All students, both old and new, are required to matriculate at the beginning of each semester and to obtain from the Treasurer a certificate of matriculation which serves also as an enrollment card. Students matriculating in either semester at a date later than that prescribed in this catalogue shall pay to the Treasurer a penalty of $\$ 5.00$ for late registration. Students whose course cards have been approved in the spring in the manner provided below are given an opportunity during the summer to matriculate by mail for the first semester. No student without a matriculation card is admitted to any class.

## COURSE CARDS

Members of the Freshman, Sophomore, and Junior classes are required to submit to the Dean, not later than the date of spring registration, cards showing their selection of courses for the following year. These cards must be approved by the Dean. After being approved, the cards must be filed for permanent record in the Dean's Office. Students in the Freshman, Sophomore, and Junior classes who do not select their courses for the following year at the time appointed must pay a fee of $\$ 5.00$ to the Treasurer of the University before their course cards may be
approved in the fall. The same regulations apply for the second semester. Students whose course cards have been approved but who, for reasons not arising within the University, desire to make a change in the card approved are required to pay to the Treasurer a fee of $\$ 1.00$ for each change made. No course may be elected later than two weeks after the opening of the semester.

If a student drops a course without permission from the Dean of the College, the grade for that course shall be recorded as "F."

If a student drops with permission a course in which he is failing at that time, the grade for that course shall be recorded as " $F$ " unless, in the judgment of the Dean, circumstances do not justify this penalty.

## EXAMINATIONS

Midyear and final examinations are held in all subjects in January and May, respectively. These dates are different for examinations held under the accelerated wartime program. The examination record combined with the record made in class constitutes the student's final grade.

## REGULATIONS REGARDING GRADES

The following regulations have been adopted by the Faculty:
Grades shall be reported so as to indicate one of four things:
(1) Passed. A grade of "A," "B," "C," or "D" shall indicate that a student has passed a course. The work of this group of students shall be graded according to the following system: "A": exceptional ; " B ": superior; "C": medium; "D": inferior.
(2) Failed. A grade of " $F$ " shall indicate that the student has failed in the course and that in order to receive credit for the course he shall be obliged to take the work again in class.
(3) Incomplete. (a) A grade of "I" may be reported by the instructor if for any reason he is unable to report the final grade at the regular time. (b) All students with incomplete grades who have not satisfied the requirements of the departments concerned and who have not obtained a passing grade before the close of the semester following the date of the regular examination in which the " I " was incurred are regarded as having failed in the course concerned and must repeat the work in class in order to receive credit.
(4) Absent from Final Examination. (a) The grade " X " shall indicate that the student was absent from the final examination, (b) A student absent from examination and marked " X ," if his absence has been excused by the Dean of the College, may receive an examination on the payment of a fee of $\$ 3.00$ to the Treasurer of the University. The department concerned shall arrange for the examination in cases where absences are incurred and excused, and the grade reported in these cases shall be earned by the student. (c) All students (with " X " grades), who have not satisfied the requirements of the department concerned and who have not obtained a passing grade before the close of the semester following the date of the regular examination in which the " X " was
incurred, are regarded as having failed in the course concerned and must repeat the work in class in order to receive credit. (d) If a student's absence from an examination is not excused by the Dean of the College, his grade for the course concerned shall be recorded as "F."

## EXPLANATION OF QUALITY-POINT SYSTEM

The requirements for the degree are reckoned not only in semester hours but also in quality points. Quality points are the points earned by a student, according to his grades, for each semester hour of credit. The the grade "A" gives three quality points for each semester hour of credit; the grade " B ," two quality points; the grade " C ," one quality point. The grade "D" carries no credit in quality points. For the grade " $F$ " one quality point is deducted for each semester hour of failure. Credit for 120 quality points, exclusive of those earned in physical education, is required for the degree of Bachelor of Arts or Bachelor of Science in all groups.

## NUMBERS OF HOURS OF CLASSWORK

Without special permission of the Dean, no undergraduate student is allowed to take less than fourteen semester hours of classwork a week.

The normal maximum credit work of an undergraduate student in the colleges of arts and sciences is fifteen, or seventeen semester hours (if one course is an eight semester hour science), and the permissible maximum is nineteen semester hours. This maximum, however, cannot be taken by a student who has not earned at least a " C " average in his work of the preceding semester.

## CLASS STANDING

For a student to rank as a Sophomore, he must have to his credit twenty-four semester hours with an average grade of " C "; as a Junior, fifty-four semester hours with an average grade of "C"; as a Senior, ninety semester hours with an average grade of "C."

## SENIOR WORK

A student of the Senior Class irrespective of his average grade in preceding years, must, in order to be eligible for graduation, complete the work of his Senior year with an average grade of " C " or better.

## EXCLUSION FOR FAILURE

A student of the Freshman Class entering college for the first time is not permitted to remain in the University in the second semester unless he passes as much as six semester hours of the work of the first semester; any other student is not permitted to remain in the University in the second semester unless he passes as much as nine semester hours of work in the first semester.

A student of the Freshman Class is not permitted to re-enter in September, nor to enter the Summer Session, if he did not pass at least six semester hours of work in the second semester of the previous year and
a total of eighteen semester hours of wrork for the entire year; any other student is not permitted to re-enter in September, nor to enter the Summer Session, if he did not pass at least nine semester hours of work in the second semester of the previous year and a total of eighteen semester hours of work for the entire year.

## STUDENTS TRANSFERRING FROM OTHER INSTITUTIONS

Students whose advanced credits from another institution are accepted by the University will be given an average grade of " C " on the semester hours with which they are credited, provided their grades warrant it.

## DEFICIENCIES IN COMPOSITION

The following regulations have been adopted by the Faculty:

1. Any Freshman who is found by the English Department to be unable to handle satisfactorily the work of composition in English 1-2 is required to take special work until he is able to do satisfactorily the regular work of English 1-2.
2. No student who has failed in English $1-2$ or 53 is permitted to become a special student without continuing his work in composition until he has made up his deficiency in this work.
3. Whenever the work of a student in any subject is satisfactory to an instructor except for gross errors in English, the instructor concerned may hand in a provisional grade only. This grade may not be recorded in the college files until the student shall have improved his work in composition to the satisfaction of the English Department. A list of such provisional grades, along with evidence of deficiencies, shall be furnished the English Department each term by the officers in charge of the grades, and a report shall be made by this department when the deficiencies have been removed.
4. All instructors are requested to advise their students each semester concerning these regulations.

## CANDIDATES FOR ACADEMIC DEGREES

1. A tentative list of all candidates for the Bachelor's degree shall be prepared under the supervision of the Dean of the College as early in the college year as possible, shall be read by him to the Faculty at its first regular meeting in October, shall be furnished in copy to each defartment of instruction for information and reference, and also shall be posted in copy on the official bulletin board of the University for the information of the students concerned. Dates are subject to change in Trinity College and the College of Engineering under the wartime schedule.
2. Copies of the second such tentative list likewise shall be prepared, read, and distributed by April 15.
3. A final list of all candidates for the degree shall be read by the Dean to the Faculty at its first regular meeting in May and shall be
adopted by the Faculty as the final list. After the adoption of this list no name may be added to it.

A student who completes in a summer session the work required by the University for the Bachelor's degree will be granted the degree at the end of that session.

## CLASS ATTENDANCE

## trinity college and the college of engineering

Absence of an undergraduate civilian student of Trinity College or the College of Engineering from his classwork is excused only if the absence is unavoidable, due to illness, or approved beforehand by the Dean of the College. Punctual attendance also is required; both tardies and absences are reported at the end of each week to the Dean's Office by every instructor. They must be explained promptly by the student to the satisfaction of the Dean; otherwise, they are regarded as unexcused. For the first unexcused absence from a course, the penalty is the loss of one quality point in that course; for the second from that course, the loss of an additional quality point in the course and probation in the course; for the third from that course, removal from the course with a loss of quality points equivalent to the semester hours credit of the course. Three unexcused tardies in a course carry the same penalty as one unexcused absence from that course; four in a course, that of two unexcused absences from that course; five in a course, that of three unexcused absences from the course. A student shall be recorded as tardy if he is not present at roll call. A student who is dropped from two or more courses for excessive absences or tardies is dismissed from college for the rest of the semester.

Instructors' weekly attendance reports are filed in the Dean's Office and become a part of the permanent record of all students. No instructor has the authority to excuse either tardies or absences of students.

## THE WOMAN'S COLLEGE

Regular and punctual attendance in classwork is expected of all students.

Weekly reports of all absences from class are made by each instructor and are filed in the Dean's Office. A permanent record of the attendance of each student becomes a part of her general college record. The instructor has no authority to excuse a student from class attendance, and it is his duty to report all absences, for whatever cause, to the Dean's Office at the end of each week.

In order to provide for an occasional short illness or for a sudden emergency, one absence per semester-hour credit may be incurred in each course during each semester without penalty, but no consecutive absences, except for illness or unless excused beforehand by the Dean, may be taken in any course, unless the class is scheduled on consecutive days. As stated above, the purpose of this rule is to provide for those absences made necessary by illness and various emergencies, and students should reserve them for such occasions.

For any consecutive absences from a course, except for illness in the Infirmary, excuse from the Dean's Office is necessary. Excuse for absence due to prolonged illness or to authorized representation of the University in a student activity must also be obtained from the Dean's Office.

After the total number of absences allowed in any course has been incurred by a student for any reason whatsoever, no further absences, except those excused by the Dean, may be incurred.

No absences on days immediately preceding or following a holiday will be allowed.

## ASSEMBLY AND CLASS MEETINGS

## TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

There shall be held on the first Thursday of each month of the college year in Page Auditorium, from 12:30 p.m. to $12: 50$ p.m., an assembly of all Seniors, Juniors, and Sophomores of Trinity College, and at this period of the day separate meetings of these three groups on the second, third, and fourth Thursdays of each month. There shall be a class meeting of the Freshman Class on each Saturday of every month at the time named above. The Engineering assemblies are held on the first Wednesday of each month from 12:30 p.m. to $12: 50$ p.m. in 104 Asbury.

Attendance upon all of these meetings is compulsory for all students involved. Any student incurring in a semester a total of more than four absences from them automatically excludes himself from college.

## WOMAN'S COLLEGE

A weekly assembly is held for all students in the Woman's College, and an additional assembly for all Freshmen and transfer Sophomores. A meeting of the Freshman Class is held each week, and other classes meet at appointed times.

Attendance upon all of these meetings is compulsory for all students involved.

## SCHOLASTIC REGULATIONS FOR ATHLETIC AND OTHER ORGANIZATIONS

The following regulations have been adopted by the Faculty:

1. Any student who receives less than a passing grade on more than six hours of his required work of the preceding term shall be ineligible to represent the University in any athletic contest, concert, or other public event.
2. Members of athletic teams or other student groups engaging in public representation of the University are expected to be carrying satisfactorily their current work. A student may be barred from participation in such representation if, in the opinion of the Dean, he is not doing satisfactorily his current work.

Duke University is a member of the Southern (Athletic) Conference ard observes the following scholastic requirements of that Conference:
"The scholastic requirement for eligibility to participate in varsity intercollegiate sports shall be the passing by the applicant of a minimum of twenty-four semester hours or thirty-six quarterhours of the work of his immediately preceding year in college; with the proviso that graduate students and students in the schools of law and medicine becomes scolastically eligible on the certificate of the deans of their schools."

## the athletic council

The Board of Trustees, at its regular annual meeting in June, 1907, created an Athletic Council to be composed of eleven members appointed annually: three from the Faculty, to be appointed by the President of the University; four from the alumni, elected by the Alumni Association; and four from the undergraduates, one from each of the four classes, elected by the members of each class.

The three members of the Athletic Committee of the Faculty are the Faculty representatives in the Athletic Council. This committee alone has the responsibility of enforcing the scholastic and athletic requirements of the University for student participation in intercollegiate sports. The athletic eligibility rules are those of the Southern Conference ; the scholarship requirements are printed elsewhere in this catalogue.

The Executive Committee of the Athletic Council is composed of the Chairman of the Faculty Committee on Athletics, and one other Faculty member and one alumni member of the Council. The Athletic Council on recommendations of its Executive Committee arranges athletic schedules, awards insignia of merit earned by members of athletic teams, and strives to promote among students of the University a proper and helpful athletic spirit; to encourage good fellowship in such sports both within the student body and toward student bodies of other educational institutions; through athletic sports to help cultivate a high sense of honor, earnest, unselfish effort, and manly conduct. The Executive Committee of the Council recommends to the President of the University persons to serve as Graduate Manager of Athletics and as coaches in the various sports. The election of such persons, however, rests solely with the Trustees of the University or the Executive Committee of the University, on recommendation of the President of the University.

All funds arising from athletics are handled entirely by the Treasurer of the University. An audit of the receipts and disbursements of these funds is made annually by the official auditors of the University.

## REGULATIONS REGARDING PUBLIC LECTURES AND OTHER PUBLIC OCCASIONS

All public lectures or addresses and other public events that are given under the auspices of the University or of any organization in any way connected with the University are under the supervision of the Faculty Council on Public Lectures.

## HEALTH AND PHYSICAL EDUCATION

The program of Health and Physical Education in Duke University has four distinct phases, as follows:

1. Student Health.
2. Physical Instruction.
3. Intramural Sports.
4. Intercollegiate Athletics.

## MEDICAL CARE

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated students of the University, during both the college year and the summer quarter, at no additional cost to them beyond the medical fee of $\$ 5.00$ payable each semester or the medical fee charged each student of the summer quarter. This service is under the direction of the University Physician with the co-operation of the Staffs of the Infirmaries (one on each campus) and the University Hospital. It includes hospitalization (limited to thirty days), medical and surgical care, drugs, dressings, X-ray work, and ward, but not special nursing. A charge for board is made at the same rate as in the University dining halls, and student meal tickets for these halls are accepted in payment of this board. Refraction of eyes, treatment of teeth and of all chronic and pre-existing conditions, such as diseased, tonsils, hernias, elective surgery, chronic skin conditions, endocrine disturbances, etc., or accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must be borne by the student.

No illness is treated in dormitory or other rooms occupied by students. Students needing treatment for minor medical or surgical conditions have the attention of the Director at his two daily visits to the Infirmaries, which have day and night nurses on duty. Students developing serious conditions are promptly transferred from the Infirmaries to the University Hospital, where they come under the care of the Staff of the Hospital.

> PHYSICAL EDUCATION AND INTERCOLLEGIATE SPORTS TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

The University requires all students to engage in some type of physical activity for two years or four full semesters. This work consists of participation in natural, practical, physical activity for at least three one-hour periods each week. A credit of six hours, with an average grade of "C," is required in physical education for graduation.

The intercollegiate athletic program is controlled entirely by the University and consists of the organization and training of representative

Freshman and varsity teams in the following sports: football, basketball, baseball, track, cross country, swimming, lacrosse, wrestling, tennis, and golf.

## WOMAN'S COLLEGE

The Physical Education Department aims to give all students an appreciation of the value of activity for general physical well-being, skill in one or more activities which can be enjoyed as recreation after college, a well-developed and well-coordinated body and a knowledge of good posture and efficient handling of the body in everyday activities.

To this end, students are allowed to choose from a large number of activities including outdoor individual, dual, and team sports; several types of dancing, swimming, and gymnastics. All Freshmen are expected to take body mechanics in the winter, and each student must elect a rhythm, one team sport, and two individual or dual sports some time during the three years of required physical education.

In addition to the required work in physical education the Dance Club, the Swimming Club, and the Woman's Athletic Association give opportunities for all students to take part in the types of intramural activities most interesting to them. The swimming pool, tennis courts, and other athletic equipment are available to all students for use at specified times.

## PUBLICATIONS COUNCIL

The student publications of the University are under the control of a council that was established in 1924 and reorganized by the Executive Committee of the University in 1935, and is constituted as follows: three (3) members from the University Staff appointed by the President of the University; two (2) members from the alumni appointed by the President of the University; six (6) men from the Junior and Senior classes, elected by the students in Trinity College and the College of Engineering; four (4) women from the Junior and Senior classes, elected by the students in the Woman's College; and three (3) editors and three (3) managers of student publications, ex officio members without any voting power. With the advice of the Council, the President of the University appoints each year for each publication an advisory committee of three (3) members from the Staff of the University.

No student publication can be started at the University without the approval of the Council.

## RELIGIOUS EXERCISES

Chapel exercises are conducted throughout the academic year at 7:00 p.m. Thursday on the campus for men. Preaching services are held on Sunday at 11:00 A.m. in the University Chapel. Organ recitals and special programs are given from time to time on Sunday afternoons. In the summer, carillon recitals are given twice a week.

## UNIVERSITY LECTURES

## THE AVERA BIBLE LECTURES

The Avera Bible Fund was established in 1897 in honor of the late W. H. Avera by his wife, who donated $\$ 2,500$ for this purpose. The income from this amount is used to establish a lectureship and to provide a collection of books on Biblical Literature.

## JOHN MCTYEIRE FLOWERS LECTURES

The John McTyeire Flowers Lectures, established by the late B. N. Duke as a memorial to John McTyeire Flowers, a young alumnus of Trinity College who died in the Far East in 1905, were inaugurated in 1921.

## UNIVERSITY LECTURE SERIES

The University Series of Lectures is given each year. These lectures are under the supervision of the Committee on Public Lectures of the Faculty.

## DUKE UNIVERSITY DAY

In commemoration of the signing by the late James B. Duke, on December 11, 1924, of the Indenture of Trust creating the Duke Endowment, under which Trinity College was expanded into Duke University, appropriate exercises are held on Duke University Day at the University. Various local alumni groups celebrate the anniversary in connection with their annual meetings, some of which are held on December 11 but most of them on other dates during the autumn.

# ALUMNI ORGANIZATIONS 

## GENERAL ALUMNI ASSOCIATION

The Alumni Association of Duke University is composed of the male graduates and former students of Trinity College and Duke University. The Association gives its annual luncheon at Commencement at which a message of greeting is given by a representative of the class holding its twenty-fifth anniversary reunion. The annual business meeting of the Association is held at this time.

## GENERAL ALUMNAE ASSOCIATION

The Alumnae Association of Duke University is composed of the women graduates and former students of Trinity College and Duke University. The Association joins with the Alumni Association in the annual luncheon at Commencement, holding its annual business meeting immediately afterward.

## GENERAL ALUMNI COUNCIL

To give definite direction and supervision in the campaign for the erection of the Alumni Memorial Gymnasium, and for other purposes, an Alumni Council was provided for at the June, 1919, meeting of the Alumni Association. Since that time the Council has developed into a working body for the promotion of alumni interests by reason of its size and frequency of meetings. The membership is made up of representatives from local associations; class representatives, elected by reunion classes on the occasion of their fifth annniversary, or a multiple thereof; and officers of the Alumni Association.

## GENERAL ALUMNAE COUNCIL

At the June, 1925, meeting of the Alumni Association the Alumnae Cuuncil was organized to function in a manner similar to that of the Alumni Council, in the interest of the former women students and of the University. Its purpose and form of organization are very much the same as those of the Alumni Council.

## THE ALUMNI OFFICE

The General Alumni Office was organized to promote the work of the local alumni and alumnae associations and to co-ordinate the various activities of the General Alumni and Alumnae Associations and the General Alumni and Alumnae Councils. Seventy-seven county and local alumni associations have been formed in North Carolina and other states.

THE ALUMNI REGISTER OF DUKE UNIVERSITY
The Alumni Register of Duke University is a monthly magazine published by the Alumni Association in the interest of the alumni and the University. It aims to keep the alumni in touch with one another and with the University.

## THE ALUMNI NEWS

The Duke University Alumni New's is sent to all alumni four times during the year.

## APPOINTMENTS OFFICE

With the co-operation of the Alumni Office, the University maintains an Appointments Office, in charge of a whole-time director, to serve graduates and advanced students of the institution on the one hand, and those who desire well-qualified persons for teaching and commercial positions on the other hand. The Appointments Office is divided into two sections: (1) the Division of Teacher Placement and (2) the Commercial Positions Division.

## DUKE UNIVERSITY NEWS SERVICE

The Duke University News Service is the official publicity agency of the University for the purpose of sending out news to the press.

## FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences and in history. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees. All fees are fixed by the Board of Trustees of the University and may be changed without notice.

## GENERAL FEES

Registration, payable only once, on notice of acceptance.................... $\$ 20.00$
Matriculation, per semester...................................................... . . . 25.00
Tuition, per semester............................................................... . . . . 150.00
Room-rent-See the detailed statement that follows.

*Recreation Facilities and Equipment Fee, per semester................. 2.00
Damage Fee, payable annually at the beginning of the first semester.... 1.00
Medical Fee, per semester........................................................ 10.00
Library Fee, per semester........................................................ . . 5.00
Commencement Fee, payable annually at the beginning of the second
semester ................................................................ 3.00
Publication Fee:
First semester.................................................................... . . 3.00
Second semester................................................................ 2.50
Diploma Fee, payable by candidates for degrees, refunded if the diploma
is not awarded............................................................ 5.00
LABORATORY AND MATERIALS FEES
Botany 1, 2, 52, 55, 101, 104, 202, 204, 221, 255, and 256.................. $\$ 2.50$
Botany 51, 103, 151, 156, 203, 216 and $252 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . .$.

$\dagger$ Chemistry 1, 2, 61, 70, 131, 153, 154, 215, 216, 234, 261, and 262......... 7.00
Chemistry $151,152,241,242,251$, and $252 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . .$.
Education 1, 58, 68, and 101................................................................ 1.00

Education 208 (for testing materials in lieu of text)..................... 2.50
Engineering
Civil S60-See Summer Session Bulletin.
Civil 61, 63, 64, 112, 118, 123, 124, 135, 143, 144, and 240............ 2.00
Electrical 153, 154, 161, 162, 163, 164, 261, 262......................... 2.00
General 109.................................................................... 2.00
Mechanical 113, 114, 115, 116, 159, 160, 176.................................. 2.50

Forestry 224, 253, 254, 259, 260, 264, 357a, and 358a....................... 2.50
Forestry 261, 351, 352, 354, 357b, 358b.............................. $\$ 2.50$ to $\$ 5.00$

[^77]Geology 51, 52, 53, 64, 101, 151, and 152 ..... 2.50
Geology 102 ..... 5.00
Field trip in Geology 51-52 and 101-102 at cost.3.00No texts are required in these courses, but a fee of $\$ 3.00$ is charged,and books placed in the Library for the use of those taking thecourses. This fee is payable at the beginning of the semester and iscollected through the office of the Treasurer of the University.
Physical Education, per semester, for men3.00
Physical Education, per semester, for women. ..... 2.00
Physics 1 and 2. ..... 5.00
Physics 51, 52, 101, 102, 203, 204, 205, 207, 213, 214, 217, 218, 219, 225, 226 ..... 6.00
Physics 106 ..... 5.00
Zoology 1, 2, 92, 161, 204, 219, 220, 222, 274, 276, 306, 324, 343, 353, and 354 ..... 3.00
Zoology 53, 151, 156, 224, 229, 303, and 321 ..... 5.00

## TEACHERS TAKING COLLEGE COURSES

Teachers in near-by schools, taking one or two courses, are required to pay a registration fee of $\$ 5.00$ each semester and a tuition fee of $\$ 3.00$ per semester hour of credit in addition to any regular laboratory fee or other fees collected from those students taking the courses.

## ESTIMATED EXPENSES FOR AN ACADEMIC YEAR

The necessary expenses of a student are moderate; the University dormitories provide thoroughly comfortable and wholesome living conditions at a minimum of cost, while all charges made by the University have been kept low. Incidental expenses depend naturally upon the tastes and habits of the individual, but the actual necessary college expenses for one year, including board, room-rent, and such University fees as tuition, matriculation, commencement, library, damage, and medical, can be met within $\$ 835.00$ for a two-semester year. Books, laundry, and laboratory fees are not included in this figure.

## LIVING ACCOMMODATIONS FOR MEN

Single room, per semester-Craven, Crowell, and Kilgo Quadrangles, West Campus.
Double room, per student, per semester-Craven, Crowell, and Kilgo Quadrangles, West Campus. 62.50

There are three groups of resident houses designated as Craven, Crowell, and Kilgo Quadrangles on the West Campus. The rooms are single, double, or arranged in suites of two rooms for four students. There are thirty-one houses within the three groups designated by the letters of the alphabet.

There is one building definitely assigned as a Freshman dormitory.
Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business Division, Duke Station, Durham, North Carolina. A reservation fee of $\$ 25.00$ at the office of the Director in the Business Division is required. This reservation fee is deducted from the room charges at the time of registration for the fall semester.

A resident student in order to retain his room for the succeeding semester is required to make application accompanied by a reservation fee of $\$ 25.00$ at the office of the Director in the Business Division. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester, or in the case of a medical student, one quarter, unless by special arrangement with the Director in the Business Division. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of $\$ 1.00$ each day.

The exchange of rooms may be arranged for at the Housing Bureau within fifteen (15) days after the official opening of the semester or quarter of the school term. A charge of two dollars ( $\$ 2.00$ ) will be made for the exchange of rooms after the periods allowed for such exchange. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of Duke University do not assume the responsibility for the personnel selected as roommates, though they will gladly render any assistance possible.

## DORMITORY REGULATIONS

Duke University is particularly eager that its students shall have the best dormitory life to be found in any institution, and to encourage this has provided buildings and equipment which are not surpassed. The institution asks and believes that in return each student will respond to this effort by arranging his personal belongings in an orderly manner, and by caring for the buildings and furniture as he would do in the home of a friend. The following regulations are offered as a guide and a reminder that care is desired.

1. The student will be held responsible for any damage to the room or furnishings during the rental period, and will pay for all damages caused by his neglect, misuse or abuse of any part of the University property. Inspections will be made throughout the college year to observe the condition of the rooms and to advise students concerning the care of rooms, if necessary.
2. Maids will prepare the rooms daily except Sunday, the service beginning promptly at 8:00 A.M. and ceasing at 1:00 P.M., thereby giving the student complete use of his room during the afternoon.
3. University furniture or furnishings must not be removed from the room in which they have been placed by the University.
4. Electric wiring, door locks, window screens, steam or water lines should not be changed or added, since the University supervises and makes such changes as are necessary and advisable.
5. Pictures, pennants, clippings should be hung from the picture moulding and not tacked or pasted on walls or woodwork.
6. Each student is expected to supply necessary sheets, blankets, pillows, rugs, and curtains. Furniture, beds and mattresses ( $39^{\prime \prime} \times 74^{\prime \prime}$ ), tables, chairs, dressers, mirrors, and window shades are furnished by the University.
7. All trunks and heavy luggage will be stored in the trunk rooms. Janitors will remove the trunks from the hallways to the storage rooms when they are unpacked.
8. The exchange of rooms or keys should be arranged for at the office. Any exchanges made otherwise will subject the participant to charges for both rooms.
9. The use or possession of intoxicating liquors, wines or beer, and gambling in any manner in any of the buildings or on the grounds of Duke University are forbidden.
10. Animals shall not be kept in the dormitories.
11. Women are permitted in the dormitories only when accompanied by the University Hostess.
12. The use of dormitory rooms as a sales office or storeroom, or the solicitation for sales or gifts within the buildings or on the grounds is prohibited except by appointees of the University.

## LIVING ACCOMMODATIONS FOR WOMEN

The Woman's College campus, known as the East Campus, is situated about a mile and a quarter from the West Campus, with a private road connecting the two.

Houses-The eight residence houses on the East Campus are Alspaugh, Aycock, Bassett, Joseph G. Brown, Giles, Jarvis, Pegram, and Southgate. A plan of the houses will be sent upon request to the Director in the Business Division, College Station, Durham, North Carolina. Each house has a resident head of house and paging system for announcing visitors.

Rooms-All questions concerning rooms should be addressed to the Director in the Business Division. The students' rooms are single, double, or arranged in suites of two rooms for two students. -

Room Furnishings-Rooms are supplied with all necessary furniture. Curtains, towels, sheets, pillow-slips, blankets, and heavy bed covering, etc., are furnished by the students. Sash curtains of a standard type are required and can be bought at the College Store. Draperies, small scatter rugs, and study lamps can be brought from home or bought at reasonable prices from the College Store or in the city. Large rugs and heavy overstuffed furniture may not be brought into the dormitories.

## Room-rent-

Single room, per student, per semester, Giles, Alspaugh, Pegram,
Bassett, Brown, Jarvis, Aycock, and Southgate Houses........ $\$ 87.50$

> Double room, per student, per semester, Giles, Alspaugh, Pegram, Bassett, Brown, Jarvis, Aycock, and Southgate Houses........ 62.50

Room Reservation-A room reservation fee of $\$ 25.00$ is required before any room reservation can be made for new or returning students. This fee is deducted from the room charges at the time of registration for the fall semester. Applicants for admission are requested not to send the room reservation fee until notified of acceptance. Those who make application and are accepted will not be entitled to have the reservation fee refunded unless the request is made on or before July 15. Those who are accepted after July 15 have ten days in which to pay their room reservation fee. This fee is not refundable.

No room assignments will be made for new students until they have been officially accepted by the Council on Admissions. The room reservation fee of $\$ 25.00$ is payable immediately upon notification of acceptance by the Council on Admissions. If room reservation fee has not been received within ten days after notification of acceptance by the Council on Admissions, the admission will be canceled.

Details relative to the signing of rooms by resident students will be posted on dormitory bulletin boards about April 15. Resident students have the right
to retain their rooms for the ensuing year or to sign for new ones in the order of their class beginning with the Seniors. The new students are then assigned the remaining rooms, and in so far as possible, the type of room which they prefer. The University is responsible for the fall semester only for securing roommates for new students desiring double rooms. After a student has been a resident for one semester, the responsibility for securing and keeping a roommate is transferred to the student. If a student occupying a double room does not have a roommate by the date posted, approximately two weeks after the beginning of the semester, she will be required to pay double rent. The University is glad to co-operate in assisting the student to find a roommate.

When a room is once engaged by a student no change will be permitted except with the consent of the Director in the Business Division. Leaving one room and occupying another without permission is strictly against the rule and will render the offender liable to a charge for both rooms for the entire semester. No occupant is permitted to rent or sublet a room to another occupant. Rooms are rented for no shorter period than one semester. When a student leaves school before the end of the semester, the charge is $\$ 1.00$ a day unless the total charge on this basis is in excess of the room rent for the semester. All undergraduates who are not residents of Durham are required to live in the dormitories unless they are living with their parents or nearrelatives. An undergraduate woman who is over twenty-one years of age and who wishes to live in the city may make special arrangements with the Dean. Provision is made for graduate students to live on the campus.

No visitors are permitted in any section of the dormitories which are occupied by women except by permission of the office of the Head of the House. Merchandising, solicitation, or advertising of any type is strictly forbidden within the dormitories.

## BOARDING ACCOMMODATIONS

Trinity College, West Campus.-The University, beginning in September, 1946, will operate three cafeterias in the Union Building in which meals may be obtained at prices consistent with quality and present-day conditions. The cost of meals, depending upon the tastes and desires of the individual, should range between $\$ 1.25$ and $\$ 1.75$ per day. The University also operates the Oak Room in which both $\grave{A}$ la Carte and Table d'Hôte dinners and luncheons are served for the convenience of students and visitors. In the Union also are located the U. S. Post Office, the University Store, the University Barber Shop, and miscellaneous offices and assembly rooms.

Woman's College, East Campus.-The dining halls of the Woman's College are situated in the Union and in Southgate. No resident woman is permitted to board elsewhere than at these halls. The charge for board is $\$ 150.00$ per semester, payable at the time of registration.

It is hoped that present rates may be maintained. Charges, however, are necessarily dependent upon costs of labor, foods and materials, and if the present inflationary trend in prices continues, adjustment may be necessary.

Because of the large number of those served in the dining halls, it is not possible to arrange special diets for individual students. Special diet for the sick is served in the Infirmary.

## LAWS REGARDING PAYMENTS

The Executive Committee of Duke University has enacted the following regulations which govern the payment of all fees due the University:

1. The President and the Treasurer of the University have no authority to suspend or in any way alter these regulations.
2. Matriculation and tuition fees are never refunded.
3. Any student who has failed to pay his bills on the dates advertised in the catalogue is denied the right to attend classes until his account is settled in full.
4. No student is considered by the Faculty as an applicant for graduation until he has settled with the Treasurer for all his indebtedness to the University.
5. No student who has not settled all his bills with the Treasurer of the University is allowed to stand the midyear or final examinations of the academic year.

When a student wishes his bills sent to his parents or guardian, the student or his parent or guardian must so notify the Treasurer of the University in writing in due time, but this in no way releases the student from liability to established penalties, if his bills are not paid on the dates advertised.

## TRANSCRIPTS

Students desiring to transfer from Duke University to another instituition are entitled to one transcript of their record. A charge of $\$ 1.00$ is made for each additional copy.

## SCHOLARSHIPS, LOANS, AND EMPLOYMENT AID

Duke University annually awards available scholarships, administers loan funds, and supervises student employment through a committee of the Faculty for deserving undergraduates of Trinity College, the Woman's College, and the College of Engineering.

## SCHOLARSHIPS

Scholarships intended to aid needy and deserving students have been established from time to time by persons deeply interested both in Duke University and in the members of its student body. Such scholarships are supported by the income from invested funds. All scholarship endowments are held in trust and are kept separate and distinct from other holdings of the University. All income is faithfully applied in accordance with the terms of the gift or bequest.

In addition, a limited number of scholarships, notably the honorary awards in recognition of scholastic merit and strength of character, are financed through current funds of the University.

Scholarships are awarded annually by a committee of the Faculty appointed by the President of the University. In some cases donors have specified certain limitations and conditions. These are faithfully followed, but in all cases final award is made by the Faculty committee.

As a general rule, scholarships cover tuition charges only, though in some instances provision has been made for larger amounts. Any prospective student may apply for a scholarship. No application, however, may be made formally by a prospective student until application for admission has been made, all necessary credentials have been presented, and notification of acceptance has been given. The number of scholarships available is small in comparison with the number of undergraduate students enrolled in the University, and as a result the committee in making the awards attempts in so far as possible to limit scholarship aid to cases where the need is imperative. Before applying for such aid, a student should first have exhausted all means of aid from parents, kinsfolk, interested friends, and commercial or civic agencies in his home locality.

All applications for scholarship aid should be made to the Scholarship Committee, Secretary's Office, Duke University.

## LOAN FUNDS

A number of loan funds have been established for the benefit of students of Duke University. The most important and largest of these is the Angier B. Duke Memorial Student Loan Fund, which is administered through an advisory committee of officers of the University. The amount available to be loaned annually depends upon the income from investments and on the amount repaid on loans previously made to students.

The same committee of officers administers the other endowed loan funds of the University.

Although a considerable sum accrues annually for loans to students, it is not sufficient to provide for all calls for assistance. The committee in approving loans selects those students who, from the standpoint of character, scholastic attainment, personality, and degree of financial need, are most deserving of consideration.

The following regulations govern the making of all student loans:

1. No loans shall be made to a student who violates any of the regulations of the University or whose classwork is not satisfactory to the Faculty.
2. As a general policy a student is not potentially eligible for loan assistance until he has been in residence at least one semester and until those responsible for the administration of loan funds have had an opportunity to acquaint themselves with the worthiness and the need involved in any particular case.
3. Loans will be made only to students who are taking approved courses of study that lead to a degree, and all loans must be arranged for not later than one week after the beginning of a semester.
4. Every applicant for a loan must present with the application such security as the President of the University may approve, and no money shall be advanced before a note with approved security is in the hands of the Treasurer of the University.
5. No loan will be made to defray any other expenses than those incurred during the academic year for tuition, for matriculation, or for room-rent.
6. Interest at a rate of six per cent annually shall be charged for all loans of money, and the interest must be paid annually.
7. Applications for loans should be made to the Loan Committee, Secretary's Office, Duke University Station. A formal application for loan assistance may be made only on blanks furnished in the Secretary's Office at the time of registration. The granting or withholding of a loan is a matter entirely within the discretion of the Loan Committee. A student is expected to use all other possible means of securing financial assistance before applying for aid from the Loan Fund.

## EMPLOYMENT

A number of students each year secure part-time employment on the University campus and in the city. Those in need of such employment may apply to the Secretary of the Committee on Student Aid, Secretary's Office, Duke University. No definite number of such places can be promised. Available places will be assigned in accordance with the merit and the need of the applicants.

## HONORS AND PRIZES

To be eligible for Honors a student must earn during the year a credit of not less than thirty semester hours. Students in the Freshman, Sophomore, and Junior classes who earn an average of at least two and one-half quality points per semester hour are given Honors. All semester hours on which a student receives a grade are counted in the determination of Honors.

The degree of Bachelor of Arts or of Bachelor of Science with distinction is conferred upon the following rules:

Students who have completed a minimum of ninety semester hours in Duke University are eligible for general Honors at graduation. Those who earn an average of at least two and one-half quality points per semester hour are recommended for a degree magna cum laude. Those who earn an average of at least two and three-fourths quality points per semester hour are recommended for a degree summa cum laude. All semester hours taken in Duke University on which a student receives a grade are counted in the determination of Honors.

## MEDALS AND PRIZES

The Wiley Gray Medal was established by the late Robert T. Gray, Esq., of Raleigh, North Carolina, to be awarded annually in memory of his brother. It is given for the graduating oration that shall be, in the opinion of a committee, the best, with respect to both declamation and composition.

The Debate Council authorizes the awarding of medals to members of the graduating class who have represented the University in at least two intercollegiate debates. The medals are given by the local chapter of the Tau Kappa Alpha Fraternity.

The Robert E. Lee Prize is the gift of the Reverend A. W. Plyler, of the Class of 1892, and Mrs. Plyler. The sum of $\$ 50$ is awarded annually at Commencement, preferably to that member of the Senior Class who in character and conduct, in scholarship and athletic achievement, in manly virtues and capacity for leadership, has most nearly realized the standard of the ideal student. The Dean of the College, the Graduate Manager of Athletics, and the President of the Student Council constitute a committee to draft and adopt regulations governing the award.

Alpha Kappa Psi Medallion. This prize is offered each year to the member of the graduating class who makes the highest record in economics and business administration during his career at the University.

The Willis Smith Prize. Mr. Willis Smith, a member of the Raleigh Bar and Chairman of the Law School Committee of the Board of Trustees of Duke University, awards each year to that member of the graduating class of the Law School who has maintained the highest scholastic average during the entire three years of Law School work, a prize consisting of a set of books selected personally by Mr. Smith each year for that purpose.

Julia Dale Prize in Mathematics. This is a prize of books given annually to the undergraduate who shows the greatest proficiency in the study of the calculus.

The Milmow Prizc, consisting of one year's subscription to the Electrical World, is awarded each year to that student from North or South Carolina graduating in the Department of Electrical Engineering, who, in the opinion of the Faculty of that department and as shown by his grades, has made the most progress in electrical engineering during his last year in college.

Institute of the Aeronautical Sciences Awards. Two annual awards, each consisting of a two-year paid-up membership in the Intsitute and a certificate, presented, respectively, to the student presenting the best paper before a meeting of the Duke student branch of the Institute, and to that student of the Department of Mechanical Engineering making the highest scholastic record in aeronautical engineering courses.

The Pcgram Chemistry Club Prize will be awarded in the spring of each year for scholarship in chemistry, physics, and mathematics. The prize is to consist of one-year junior membership in the American Chemical Society, and a one-year subscription to either the Journal of the American Chemical Society, or to Industrial and Engineering Chemistry. To qualify for this prize the student must (1) be enrolled as an undergraduate of Duke University and (2) be taking or have taken a fourthyear chemistry course. The winner of this prize is to be selected by a committee consisting of at least one Faculty member and at least two members of the Pegram Chemistry Club; the selection is to be based on the quality-point average for all courses taken in chemistry, physics, and mathematics. In case of a tie equal awards will be given.

The Sigma Xi Prize. The Society of the Sigma Xi, honorary scientific society, is devoted to the encouragement of scientific research, and seeks to stimulate those who show promise of accomplishment in scientific research. As an encouragement to younger men and women the Duke Chapter of Sigma Xi has established the following prizes to be awarded annually to students resident at Duke University: $\$ 20.00$ for an undergraduate project or paper, $\$ 20.00$ for a Master's thesis or its equivalent, and $\$ 40.00$ for a Ph.D. dissertation or its equivalent. Nominations, recommendations, copies of theses, reports or other material must be in the hands of the Secretary of the Chapter on or before May 5.

The Erasmus Club Prize in the Humanities. The Erasmus Club, founded in 1925, a group of Duke faculty members interested in research in language, literature, and the arts, seeks to stimulate interest and study in these fields. To encourage Duke students in this field, the Erasmus Club has established an annual prize, amounting to $\$ 25.00$, for the best original essay by an undergraduate which embodies the results of research, criticism, or evaluation in some subject in the humanities. Prospective competitors should consult some member of the Faculty, preferably their major professor. Essays must be typewritten and must be submitted to the president of the Club before the first of April. The Club reserves the right to withhold the prize in case there are no essays of acceptable quality.

## STUDENT ORGANIZATIONS AND ACTIVITIES

The Men's Association of Duke University comprises all men students in Trinity College. It functions through its officers and a council to initiate policies and to oversee matters within the control of the student body. The council is composed of nine members: three executive officers, two representatives from the Senior Class, two from the Junior Class, and one from the Sophomore Class, and one from the College of Engineering.

The Women's Student Government Association is similar in character to the men's association. Its council is composed of the officers of the association and ex officio of the Y.W.C.A. president and an undergraduate representative.

The Young Men's Christian Association and the Young Women's Christian Association are branches of the national student Christian Associations. Each body aims to enrich not only the religious life of its members as individuals but also to promote religious group activity. Delegates are sent each year to summer conferences, state conventions, interstate conventions, and the state Bible and missionary institutes. Every year a series of special religious services is held. The Open Forum Bible Class is conducted under the auspices of the Church Board.

Other organizations and activities include the following:
Bench and Bar Association (Pre-Legal Undergraduates) ; Classical Club (Men); "Cogs" (College Organization for General Service) ; Debate Council (Men); Debating Club (Women); Duke University Church (Interdenominational); Duke University Pre-Medical Society (Undergraduate Medical Group) ; Hoof and Horn Club; Isotes (Independent Social Group-Women) ; Ministerial Fellowship; Modern Dance Group; Nereidian Club (Women) ; Poetry Club; Quadrangle Pictures; Student Forum Committee (Women) ; Student Religious Council; The Duke Players; The Explorers' Club;* Town Boys' Club; Town Girls’ Club; Trident Club; Social Activities Board; Women's Athletic Association; and W. H. Pegram Chemistry Club.

## HONORARY ORDERS AND FRATERNITIES (NATIONAL)

Chi Delta Phi (Literary-Women); Kappa Delta Pi (Education); Omicron Delta Kappa (Leadership-Men) ; Phi Beta Kappa (Scholarship) ; Phi Eta Sigma (Freshman Scholarship-Men) ; Pi Mu Epsilon (Mathematics) ; Sigma Delta Pi (Spanish) ; Tau Kappa Alpha (Forensic) ; Tau Psi Omega (French) ; Theta Aplha Phi (Dramatic).

HONORARY ORDERS AND FRATERNITIES (LOCAL)
Beta Omega Sigma (Sophomore-Men) ; Delta Phi Rho Alpha (Ath-letic-Women) ; 9019 (Scholarship-Men) : Ivy (Freshman Scholarship —Women) ;* Red Friars (Leadership-Men) ; Sandals (Sophomore-

- Inactive for the duration of the war.

Women) ; Tombs (Athletic-Men); White Duchy (LeadershipWomen).

## ENGINEERING ORGANIZATIONS AND FRATERNITIES

American Institute of Electrical Engineers; American Society of Civil Engineers; American Society of Mechanical Engineers; Institute of the Aeronautical Sciences; Delta Epsilon Sigma (Duke Honorary Engineering Fraternity) ; Engineering Student Government Association; Engineering Town Boys' Club.

## MUSICAL ORGANIZATIONS AND FRATERNITIES

Kappa Kappa Psi (National Band Fraternity) ;* The Duke University Instrumental Music Association, comprised of members from Duke University Band, Duke University Orchestra, and chamber music groups; The Men's Glee Club; The Women's Glee Club; The University Chapel Choir ; The Woman's Music Study Club.

## SOCIAL FRATERNITIES (NATIONAL) <br> (The Men's Panhellenic Council)

Alpha Tau Omega; Beta Theta Pi; Chi Phi; Delta Sigma Phi ; Delta Tau Delta; Kappa Alpha; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Kappa Psi; Phi Kappa Sigma; Pi Kappa Alpha; Pi Kappa Phi ; Sigma Alpha Epsilon; Sigma Chi ; Sigma Nu; Sigma Phi Epsilon; Zeta Beta Tau.

## SOCIAL SORORITIES (NATIONAL)

(The Women's Panhellenic Council)
Alpha Chi Omega; Alpha Delta Pi; Alpha Phi; Alpha Epsilon Phi; Delta Delta Delta; Delta Gamma; Kappa Alpha Theta; Kappa Delta; Kappa Kappa Gamma; Phi Mu; Pi Beta Phi; Sigma Kappa; Zeta Tau Alpha.

## STUDENT PUBLICATIONS

(Publications Council)
Archive (Monthly) ; Chanticleer (Annual) ; Chronicle (Semiweekly) ; Duke ' $n$ ' Duchess (Monthly Humor) ;* DukEngineer (Bimonthly).

## STUDENT ACTIVITIES OFFICE

The Student Activities Office was established for the purpose of assisting and co-ordinating the financial activities of the various student organizations in Trinity College.

The office offers to student organizations a banking service through the office of the University Treasurer.

There is no charge for this service.
The Student Activities Office, co-operating with the University Purchasing Department, also serves in the capacity of purchasing agent for its affiliated student organizations. Problems of a general nature having to do with extracurricular activities may be discussed with this office.

- Inactive for duration of the war.


# THE GRADUATE SCHOOL OF ARTS AND SCIENCES 

1945-1946<br>ANNOUNCEMENTS FOR 1946-1947

## GRADUATE INSTRUCTION IN DUKE UNIVERSITY

## ADMISSION TO GRADUATE COURSES

A student who has received the A.B. or B.S. degree from an institution of recognized standing for a four-year undergraduate course may be admitted to take graduate courses in the Graduate School of Arts and Sciences of Duke University, provided that his undergraduate record gives positive evidence of ability to undertake graduate study successfully. An average grade of not less than " $B$ " is ordinarily accepted as evidence of such ability.

All new applicants for admission to graduate courses are now required to take the Graduate Record Examination before they can be admitted. In cases where it is not possible to take the examination before arrival at Duke University and where the transcript of work taken elsewhere clearly shows that the student is otherwise eligible, the examination may be taken the first time it is given here after the student's arrival. Students may make their arrangements for taking this examination directly with the Graduate Record Office, 437 West 59th Street, New York City. Examinations will be conducted several times each year at centers distributed throughout the United States and Canada.

No college or university work taken before the Bachelor's degree is conferred, or fully earned, may be credited toward an advanced degree except under the following circumstances: A student of Duke University who lacks at the beginning of a semester not more than nine semester hours of fulfilling the requirements for the Bachelor's degree may obtain permission from the Dean of the Graduate School to take during the semester graduate courses sufficient to bring his total work to fifteen hours a week. Such graduate courses will be credited toward the degree of Master of Arts or Master of Education if registered in the Graduate School Office at the beginning of the term and if the student meets the requirements below for formal admission to the Graduate School.

A candidate for admission to graduate courses should ask the proper officer of the college(s) he attended to send directly to the Dean of the Graduate School an official transcript of his undergraduate record. An advanced student should provide also a transcript of the graduate work completed by him. Students who have attended more than one college or university should note that certification by one institution of work completed at another institution cannot be accepted. In no case will a transcript presented by the candidate himself be accepted as a basis for admission, nor will a transcript mailed by any institution be returned to the student. An application blank for admission will be provided upon request to the Dean of the Graduate School. The transcript and appli-
cation should be submitted to the Graduate School by September 1 for admission in the autumn semester and by January 10 for admission in the spring semester.

## TO THE GRADUATE SCHOOL

After twelve semester hours of graduate work, the student may apply for admission to the Graduate School, and thus become a candidate for the Master's degree. Such admission is dependent upon the fulfillment of two conditions. (1) The student must have made a mark of " $G$ " or "Good" in at least three semester hours of work, with no mark less than "S." Candidates who cannot meet this condition may at a later time submit their records for re-evaluation, provided that in their subsequent work they shall have made a substantial number of "G's." (2) The student in his undergraduate work must have met substantially the requirements for the A.B. or B.S. degree at Duke University.* Any deficiencies of undergraduate work must be satisfied before admission to the Graduate School. Graduate courses taken at Duke University prior to formal admission to the Graduate School will count toward a higher degree provided they are in accord with its requirements and are acceptable to the major department. A graduate student may be requested to withdraw from the University at the discretion of the Dean of the Graduate School.

## REGISTRATION

Before actually registering in the Graduate School Office, the student who is admitted to graduate courses should consult with the Director of Graduate Studies or his representative in the department in which he proposes to major and receive written approval of his schedule of courses. This can be done during the registration period in September and January. The department concerned will determine whether a student is prepared to take any particular course. In all cases the student must make up without credit toward a graduate degree all prerequisites required by the major department of candidates for advanced degrees. Stucients who have fulfilled the minimum residence requirements for the doctorate but who are continuing resident study at Duke University for the degree should register in the Graduate School Office, even though there may be no fees to be charged.

New students are advised to arrive early during the registration period in order to formulate their programs. Anyone registering for courses after the close of the regular registration period will be charged a late registration fee of five dollars.

## TUITION AND FEES

## general fees in the academic year

The following table shows the general fees and charges collected from all students and the special fees collected from those taking courses in the sciences. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that

[^78]semester. No student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.
Matriculation, per semester.................................................... $\$ 25.00$
Tuition, per semester............................................................... . . 150.00
Athletic Fee, admitting students to all athletic contests held on the
University grounds, per semester, optional............................... 5.00
Damage Fee, payable annually in September................................. 1.00
Medical Fee, per semester....................................................... . . 10.00
Library Fee, per semester.............................................................. . . 5.00
Commencement Fee, payable once by graduate students in the last semester before a degree is conferred.
Diploma Fee, payable by candidates for degrees at the beginning of the second semester, refunded if the diploma is not awarded.........
Special Thesis Fee, payable by candidates for Ph.D. degree in the last semester before the degree is granted. Returned on satisfactory publication of thesis.
50.00

## SPECIAL FEES

Graduate students in the sciences are required to pay the regular laboratory fees for courses as determined by the various departments. An administrative fee is charged in connection with special research work in the summer under direction of a member of the Faculty.

## STUDENTS FROM THE UNIVERSITY OF NORTH CAROLINA GRADUATE SCHOOL

Under an experimental plan of co-operation between the University of North Carolina and Duke University, regular students from the University of North Carolina Graduate School admitted to courses in the Duke University Graduate School pay a registration fee of two dollars and any laboratory or special course fees which are required of all students.

## TRANSCRIPTS

A student desiring to transfer from Duke University to another institution is entitled to one free transcript of his record. A charge of one dollar, payable in advance, is made for each additional copy. Transcripts of students who enroll in graduate courses only in the summer sessions are issued by the Summer Session Office prior to the fulfillment of all requirements toward an advanced degree, after which time they can be obtained in the regular way from the Graduate School.

## PAYMENTS TO FELLOWS, SCHOLARS, AND GRADUATE ASSISTANTS

Payments by the University of stipends to fellows, scholars, and graduate assistants are made in four equal installments, approximately the middle and end of each semester. Tuition and fees are charged against the stipends.

Fellows and scholars are required to pay the regular tuition and fees and are expected to take a full program of work. Assistants who are permitted to register for only four fifths of a regular program are charged a proportionate amount of the tuition in addition to the regular matriculation and other minor fees

## SPECIAL CHARGES FOR TEACHERS AND OTHERS

For the purpose of aiding North Carolina teachers in their professional preparation, Duke University grants a special tuition rate to members of the faculties of near-by schools and colleges who desire to register during the regular academic session for one or two graduate courses. For such courses a teacher regularly employed and teaching while taking these courses is charged a registration fee of five dollars at the beginning of each semester and a tuition fee of three dollars per semester hour of course credit, together with any laboratory fees which may be required in these courses. Under this provision a student may not register for more than seven hours per week.

Employees of Duke University who are paid on a monthly basis throughout the year, ministers of near-by churches, and wives of the Duke Faculty may be included under the above provisions by the Dean of the Graduate School, provided that such persons do not receive residence credit in any semester for more than two fifths of a regular program in meeting the requirements for advanced degrees.

The special tuition rate for teachers does not apply in any case to the holders of fellowships, graduate scholarships, and graduate assistantships annually awarded in the Graduate School nor to teachers on leave of absence and not actually engaged in their teaching at the time of registration.

## FELLOWSHIPS, SCHOLARSHIPS, AND ASSISTANTSHIPS

For the assistance and encouragement of graduate students of high character and marked ability, the University has established a considerable number of fellowships and scholarships. Holders of fellowships and scholarships will be expected to pay the tuition fee and such additional fees as are regularly required. Applications for these appointments together with supporting credentials should be received on or before March 1 of each year. In case vacancies occur, applications submitted on a later date will be considered. Appointments which were offered for the year 1946-47 are listed below.

FELLOWSHIPS
One Angier Duke Memorial Fellowship of one thousand dollars.
Twenty university fellowships with stipends varying from six hundred to eight hundred and fifty dollars each.

Two Gurney Harriss Kearns Fellowships in Religion of seven hundred dollars each.

Fellows will be required to give a limited amount of assistance in reading papers, in laboratories, or in other departmental duties. All fellows carry a full program of graduate work.

## GRADUATE SCHOLARSHIPS

Twenty-five graduate scholarships with stipends varying from four hundred to five hundred dollars each.

Scholars may be asked to give a limited amount of assistance in departmental work. They normally carry a full program of graduate studies.

## CHARLES W. HARGITT RESEARCH FELLOWSHIP IN ZOOLOGY

The Charles W. Hargitt Research Fellowship in Zoology, carrying a stipend of $\$ 1,000$, is restricted to research work in the field of Cytology. Appointment is for a single year, with the possibility of reappointment. The fellowship is primarily for postdoctoral research. Inquiries and applications should be made to Dr. George T. Hargitt, Biology Building, Duke University, Durham, North Carolina.

## FELLOWSHIPS AND GRADUATE SCHOLARSHIPS IN FORESTRY

Information regarding special fellowships and graduate scholarships in forestry may be obtained before March 1, 1947, from the Dean of the School of Forestry, Duke University, Durham, North Carolina.

## APPOINTMENTS AS GRADUATE ASSISTANTS

A considerable number of appointments as teaching assistants or readers will be available for graduate students. The compensation will usually range from $\$ 450$ to $\$ 900$, depending upon the nature and amount of the work assigned. Assistants receiving $\$ 500$ or more will be registered for four fifths of a normal program of studies and accordingly will receive four fifths residence credit. Assistants in this classification will be charged four fifths of the tuition fee, and the same matriculation and minor fees as other students.

## THE LIBRARY

The total number of volumes in the University Libraries on June 30, 1945, was 722,613 volumes. These were distributed among five main units: the General Library with 498,772 volumes; Divinity Library, 37,623 volumes; the Hospital (Medical) Library, 42,385 volumes; the Library of the Law School, 78,131 volumes; and the Woman's College Library, 65,702 volumes.

The work of students in the Graduate School is carried on primarily in the General Library. A Reading Room, which contains the reference material most in demand, provides a quiet and convenient place for study. Graduate students are also admitted freely to the stacks. Within the stacks are located 108 carrells or desks which are assigned on an annual basis, preference being given to students in the Graduate School. To facilitate work in the natural sciences, the General Library maintains departmental libraries adjacent to laboratories for the Departments of Chemistry, Physics, and Biology. Departmental libraries are also maintained for the College of Engineering and the School of Forestry.

In the field of mathematics and the sciences particular attention has been given to securing files of important journals and serials. A checklist of all scientific periodicals and serials on the University campus shows a total of approximately 2,460 files in a more or less complete form. The total number of current periodicals received by subscription, exchange, and gift in 1944-45 was 3,061 , exclusive of duplicates.

In the field of the social sciences and the humanities every effort has been made to secure the basic collections of source material as well as the more important publications of criticism and discussion. This has been
done by the acquisition of such sets as the Die Griechischen Christlichen Schriftsteller der ersten drei Jahrhunderte, Corpus Scriptorum Ecclesiasticorum Latinorum, Migne's Patrologia, the Corpus Scriptorum Historia Byzantiae, the Monumenta Germaniae Historica, the Acta Sanctorum, the Corpus Reformatorum, the catalogues of the manuscript collections of the larger European libraries, complete files of the publications of the League of Nations, the International Labor Office, and many others. The endeavor to select the more important items in the various fields of graduate work has been supplemented by the purchase of a number of special collections and libraries. Among the more important of these might be mentioned a Peruvian library of approximately seven thousand books and manuscripts; a library of several thousand volumes dealing with Brazil; the Robertson library of Philippiniana; the Lanson Collection of French literature consisting of twelve thousand books and monographs; a Goethe collection of one thousand volumes; a Scandinavian collection of three thousand volumes; a collection of about five thousand items of early Americana, dating from the seventeenth century to 1820 ; the Holl church history library dealing primarily with the period of the Reformation; a collection of many thousands of church minutes and records of American denominational history; two collections of eighteenth-century English poetry and prose totaling about five thousand items; two special collections, one dealing primarily with Byron and the other with Coleridge, containing a number of manuscripts, annotated copies, and first editions; a collection of material on the Fourier movement; and the Thomas Collection of books on Chinese history and culture. Special mention should be made of the George Washington Flowers Collection of manuscripts, books, newspapers, and pamphlets dealing with all phases of Southern history, and of the Trent Collection of Walt Whitman books and manuscripts.

## Public Documents

The importance of public documents as fundamental source materials for the social sciences and as containing also some of the most important work in the field of applied science is being clearly recognized, and an excellent start has been made toward a comprehensive collection of this material. The Library has been a depository for Federal documents since 1890. State documentary publications are also being systematically collected in co-operation with the University of North Carolina. Of European public documents a representative collection has been secured. Among the more notable items might be mentioned the British Parlianentary Papers (since 1925), Calendar of State Papers, the Acts of the Privy Council, Hansard's Debates, the Débats Parlementaires of the French Senate and Chamber of Deputies, the Journal Officiel de la République Française, the Bulletin des Lois de la République Française, the Reichsgesetzblatt, the Verhandlungen des Reichstages, the Atti of the Italian Parliament, and the Diario of the Spanish Cortes. The public documents of the Latin-American countries, especially Argentina, Brazil, Chile, and Peru, form one of the strongest units of the Library.

Under this heading should be mentioned also the Library of Professor Louis Strisower, Sometime President of the Institute de Droit International, which contains approximately five thousand volumes dealing with international law. The volumes date from the seventeenth century to the present and contain some especially valuable periodical files and rare books.

## Publications of European Academies

The Duke University Library has the publications of many of the European academies, containing monographs in most of the fields of knowledge and constituting important sources for the research programs of graduate students and Faculty. The sets comprise about two thousand volumes and include Preussische Akademie der Wissenschaften (Berlin); Gesellschaft der Wissenschaften zu Göttingen; Sächsische Akademie der Wissenschaften (Leipzig); Bayerische Akademie der Wissenschaften (Munich); Heidelberger Akademie der Wissenschaften; Akademie der Wissenschaften (Vienna) ; Académie des sciences (Paris): Académie des inscriptions et belles-lettres (Paris); Académie des sciences morales et politiques (Paris); Accademia nazionale dei lincei; Accademia pontificia dei mova lincei (Rome); Real academia española (Madrid); Academia de la historia (Madrid) ; Akademia nauk (Leningrad) ; Dansk videnskabernes selskab (Copenhagen) ; Norsk videnskapsakademi i Oslo; Akademie van Wetenschappen (Amsterdam): Académie royale des sciences, des lettres et des beaux-arts de Belgique (Brussels) ; Akademija umiejetnosci (Krakow).

## Newspapers

The Library collection of newspapers contains around twelve thousand volumes. Practically all states of the Union are represented, although the major part of the collection is from along the Atlantic seaboard. Of the eighteentl-century items, the states best represented are Massachusetts, Maryland, New York, Rhode Island, Virginia, North Carolina, South Carolina, and Georgia. There is an excellent collection of nine-teenth-century New England papers. The World War period is unusually strong with about twenty-eight titles practically complete for 1914-19. There is a group of papers from Germany in the years just after the World War. Special emphasis has been placed on the Southern States, and there are numerous volumes of papers from North Carolina, South Carolina, and Virginia, representing the Colonial period, the AnteBellum period, and the Civil War period. The current subscription list of eighty-one titles represents American public opinion and contains fourteen important foreign titles.

## Manuscripts

The manuscript collection now contains 888,879 items relating chiefly to the South Atlantic region. Most numerous are records of military, social, and economic life in the Confederate period including letters, diaries, rosters, military reports, statutes of the Confederate Congress,
court records, and papers of various departments of the Confederate Government. Outstanding among the many papers providing a well-rounded picture of life in the South during the nineteenth century are original census returns of Georgia, Kentucky, Louisiana, and Tennessee for 1850 and 1860. The collection, most copious in the field of history, contains information on all phases of social and economic life as well as politics. Numerous large collections bear particularly on the history of Alabama, Georgia, North Carolina, South Carolina, and Virginia. Of interest for historical studies are the papers of P. G. T. Beauregard, John C. Calhoun, David Campbell, Robert Carter, Clement C. Clay, Henry Clay, William H. Crawford, John J. Crittenden, Jefferson Davis, Nathanael Greene, Andrew Jackson, Robert E. Lee, Alfred T. Mahan, Alexander H. Stephens, and others. The field of American literature is represented by papers of Thomas Holley Chivers, John Esten Cooke, Clara V. Dargan, Paul Hamilton Hayne, George Frederick Holmes, Alexander B. Meek, Thomas Nelson Page, Augustin L. Taveau, and Walt Whitman. Among the non-Southern materials there are interesting groups of papers centering on George Moore, the Rossettis, Robert Southey, and Tennyson. Of the medieval manuscripts, consisting chiefly of lectionaries and copies of the New Testament, one thirteenth-century New Testament in Greek is noteworthy. The Library has recently acquired the official files of the Socialist Party of America extending from 1901 to 1938, and a collection of the papers of George Holyoake.

## Exchange Privileges with the Library of the University of North Carolina

The libraries of Duke University and of the University of North Carolina have arrangements for the fullest exchange of privileges and resources. Each library contains a catalogue of the contents of the other, and books requested from the other library are supplied through a delivery service which operates weekly. Faculty members and graduate students may secure cards admitting them to the stacks of the other library. The Library of the University of North Carolina contains approximately 459,558 volumes, besides a large collection of manuscripts relating to Southern history. Under this arrangement more than $1,182,000$ volumes are available to students in the combined libraries.

## SCIENCE LABORATORIES BIOLOGICAL LABORATORIES

The Biology Building on the West Campus contains three refrigerated rooms, an incineration room, a workshop, an aquarium room, five animal rooms connected with outside yards, and eight dark rooms. Special laboratories are provided for advanced work in plant and animal physiology, parasitology, cytology, taxonomy, bacteriology, ecology, histology, mycology, anatomy, embryology, endocrinology, entomology, forest soils, and wood anatomy and properties. A 300 -acre arboretum is being de-
veloped adjacent to the campus with Dr. E. S. Harrar in charge. A greenhouse gives adequate space for experimental work and propagation. There is an herbarium of some fifty thousand specimens of all plant groups with a large representation of the Southern flora. Dr. H. J. Oosting is Curator of the Herbarium, and Dr. I. E. Gray is Curator of the Zoological Museum. On the East Campus, laboratories are provided for undergraduate women, and there is a small greenhouse near the Science Building. Laboratories and rooms for students doing research are equipped with vacuum, compressed air, direct and alternating current, gas, and running water. Proper equipment and supplies for biological work are available.

The Duke Forest and its streams provide excellent collecting grounds. The Duke Forest is under the management of the School of Forestry. Duke University is situated in the Piedmont region, between the mountains and the coastal plain. This gives easy access to a varied flora and fauna. North Carolina is the home of the tulip poplar, holly, rhododendron, mountain laurel, flowering dogwood, several species of insectcatching plants, cypress, and other interesting plants. Among the animals are a varied assortment which range from marine to mountain species. In the forest about the University there is a great variety of small game.

The Duke Marine Laboratory at Beaufort, North Carolina, provides facilities for work on plants and animals in and near the ocean. It is situated on Piver's Island, adjacent to the Biological Laboratory of the United States Fish and Wildlife Service. Dr. A. S. Pearse is Director and Dr. Harold J. Humm is Assistant Director.

## PHYSICAL LABORATORIES

The physical laboratory contains approximately an acre of floor space which is devoted to instruction and research. In addition to the usual lecture and elementary laboratory facilities, laboratories are provided for work in electrical measurements, optics, atomic physics, and advanced measurements in general physics.

Rooms are provided for various instruments of research in spectroscopy, such as a 10 -foot concave grating which is used in conjunction with a 32 -meter-long stainless steel pipe for study of weak absorption; a vacuum spectrograph with a 2 -meter glass grating; an apparatus for the study of the Raman spectra of gases photographed with a large 3-prism glass f 2.5 glass Zeiss spectrograph and various other spectroscopic instruments, such as the Hilger E-1, Moll microphotometer, etc.

A well-equipped shop operated by trained instrument makers makes possible the development of instructional and research apparatus. A shop is also provided for the use of the staff and graduate students.

CHEMICAL LABORATORIES
Graduate work in chemistry is carried on in a modern building with a floor area of about 57,000 square feet. Of this total space a large proportion is available for research and advanced teaching. There are twentyfive double research rooms completely equipped with the usual services. In addition, a number of specially designed rooms are available for
present or future research, such as a photographic room, constant temperature room, distillation room, combustion room, bomb room, and rooms equipped with dielectric constant and magnetic measurements.

A glass-blowing room and a well-equipped shop, operated by a competent mechanic, provide facilities for the construction of special apparatus and for the repair and maintenance of instruments.

## MEDICAL SCHOOL

In the School of Medicine elaborate facilities are provided for postgraduate research in the various branches of medical science. The Departments of Anatomy, Bacteriology and Immunology, Biochemistry, and of Physiology, Pharmacology, and Nutrition offer certain courses and adequate research facilities to students in the Graduate School of Arts and Sciences. The use of the Duke Hospital Library is available to all graduate students.

## THE DUKE FOREST

Through placing the Duke Forest under intensive management for forestry purposes, substantial progress has been made in developing the educational work and research in forestry. The Duke Forest consists of approximately seven thousand acres of land, most of which is adjacent and easily accessible to the University campus. Situated in the lower Piedmont region and composed of second-growth shortleaf pine, loblolly pine, and hardwoods, the Forest is representative of the various types of timber growth and soils found throughout the region.

The proximity of the Forest to the laboratories, greenhouses, and library facilities of the University provides an excellent opportunity for advanced study and research in forestry. Research, particularly in the fields of silvics, forest soils, silviculture, forest management, properties of wood, forest-tree physiology, forest entomology, and forest pathology, is well under way. Several members of the Botany and Zoology staffs are also engaged in research in the Duke Forest.

For additional information see the Bulletin of the School of Forestry.

## ENCOURAGEMENT OF RESEARCH

The President of the University appoints annually a University Council on Research. The members of this Council are chosen from the Faculties of the Schools of Medicine and Law, the Divinity School, and the Graduate School of Arts and Sciences. In May of each year the Council on Research receives written applications from members of the Faculty for subsidies to be used in the following fiscal year to aid them in carrying out research projects. Stipends are granted for the employment of research assistants, for the purchase of books, and for apparatus, supplies, and equipment. Each member of the Faculty to whom a research stipend is granted must make a written report within twelve months to the Council concerning the progress of the investigation for which the stipend was allowed.

## SPECIAL LECTURES

During each academic year the University Lecture Committee arranges for a number of special lectures of value to graduate students interested in various fields of knowledge. The Woman's College Lecture Series brings other guests to the campus. In addition to these lectures, a number of distinguished speakers appear each year on the programs of various schools and departments of the University.

Among the guest lecturers in 1945-46 were Mr. J. Russell Wiggins, Editor of the St. Paul Pioneer and. Dispatch Paper, and Mr. Felix Morley.

## THE UNIVERSITY PRESS

In 1897 Trinity College began sponsoring the publication of "The Papers of the Trinity College Historical Society," which was distributed to members of the Society and on exchange to other institutions. This series was the first publishing venture of the College. In 1902, the 9019, an honor scholastic society on the campus, founded The South Atlantic Quarterly, which is now published by the Press.

In 1921 the Trinity College Press was established to publish the results of research engaged in by the Faculty and such other works as were approved by a board of editors appointed for the purpose. In 1925, with the acceptance of the benefaction of James B. Duke, Trinity College became one of the undergraduate colleges of Duke University, and the following year the University Press was organized to succeed the Trinity College Press.

One of the first steps of the new organization was to revive The Hispanic American Historical Review, which had been founded and published from 1918 to 1922 by a group of scholars interested in Hispanic America. Since 1926 its publication has been continued without interruption, and its mission has been supplemented by many studies dealing with the history, politics, and foreign relations of the Hispanic nations of the New World. In 1929 American Litcrature was begun with the co-operation of the American Literature Group of the Modern Language Association. This journal was followed in 1931 by Ecological Monographs, a quarterly sponsored by the Ecological Society of America, to take care of papers too long for inclusion in Ecology. Character and Personality, since 1945 the Journal of Personality, an international quarterly appearing simultaneously in the United States and Great Britain, was founded in 1932 as a medium for the publication of studies in fields related to this phase of psychology. In 1935 the Press started the publication of the Duke Mathematical Journal, with the co-operation of the Mathematical Association of America, and in 1937 The Journal of Parapsychology for the publication of the results of research in extrasensory perception and related topics. For the Southern Association of Colleges and Secondary Schools, the Press publishes The Southern Association Quarterly, the official organ of the Association. The Law School of Duke University sponsors Laze and Contemporary Problems, presenting a symposium of some important legal problems in each number.

Besides its books, monographs, and regular quarterly publications the Press issues "Contributions to Psychological Theory" and "Duke University Research Studies in Education," the latter sponsored by the Department of Education of the University. It publishes also the Bulletin of the University Marine Laboratory at Beaufort.

Since its organization the Press has offered to the public the products of scholarly research to the number of more than one hundred and fifty volumes. It has not limited its scope to any one field or to any one group of authors. In addition to the many works submitted by members of the Faculty, a great number of titles by authors without a connection with the University have been issued under the imprint of the Press.

In the broadest sense, the present policy of the Press is to give to the public any scholarly work which, because of the merit of its contents, its style, and its general value, deserves publication.

## COURSES OF INSTRUCTION

This is a condensed description of courses. For a full description, see Bulletin of the Graduate School.

Certain undergraduate courses are open to graduate students with the approzal of the department. See the Bulletin of Undergraduate Instruction.

## DIVISION OF ANCIENT LANGUAGES AND LITERATURES

PROFESSORS CLARK, ROGERS AND STINESPRING; ASSISTANT PROFESSORS
ROSE, TRUESDALE AND WAY
FOR SENIORS AND GRADUATES
201-202. Greek Tragedy.-6 s.h.
Assistant Professor Rose
203-204. Homer.-Odyssey. Pindar and Bacchylides. 6 s.h.
Assistant Professors Truesdale and Way

205-206. Greek Historians.-6 s.h.
207-208. Greek Orators.-6 s.h.
209-210. Plato.-6 s.h.
211-212. Aristophanes.-6 s.h.
(Only one of the six courses listed above is offered each year.)
243. Athenian Topography.-3 s.h.
244. Greek Epigraphy.-3 s.h.
245. Greek Dialects.-3 s.h.
246. Greek Historical Inscriptions.-3 s.h.

247-248. Greek Archaeology.-6 s.h.
257. Social and Cultural History of the Hellenistic World from Alexander to Augustus.-3 s.h.

Assistant Professor Rose
Assistant Professor Way
Assistant Professor Way
Assistant Professor Rose
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way
Assistant Professor Way

## For graduates

The more advanced work of the graduate department is done in the seminar. One author or group of authors forms the center of study each year. Seminars are offered in Aristophanes (301-302), The Greek Historians (303-304), The Attic Orators (305-306), and The Greek Tragic Poets (307308). These run through a cycle of four years. In 1946-47 the work will be:

301-302. Seminar in Aristophanes.-6 s.h.
Graduate students of Duke University may attend the American School of Classical Studies in Athens, Greece, without charge for tuition, and they are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology, and one in the language, literature, and history of ancient Greece, each with a stipend of $\$ 1,300$. They are awarded mainly on the basis of examinations held in the beginning of February of each year.

Latin and roman studies
FOR SENIORS AND GRADUATES
201. Roman Fiction.
202. Latin Christian Writers.

203-204. Roman Epic: Ennius, Vergil, Manilius, Lucan, Flaccus, Statius, Silius. -6 s.h.

205-206. Roman Drama: Plautus, Terence, Seneca.-6 s.h.
207-208. Roman Philosophy.
209-210. Vulgar Latin: Introduction to Romance Philology.
211-212. Roman Oratory.-6 s.h.
Professor Rogers
215. Introduction to Roman Art and Archaeology.
216. Topography and Monuments of Ancient Rome.

251-252. Roman Life.
258. Social and Cultural History of the Graeco-Roman World.-3 s.h.

Professor Rogers
281-282. Roman Historical Literature.
283-284. Roman Law.-6 s.h. Professor Rogers
FOR GRADUATES
309-310. Sight Reading and Composition.-6 s.h.
Assistant Professor Rose
311-312. Latin Epigraphy.-6 s.h.
Professor Rogers
Seminars: Various authors or historical periods are selected from year to year as a basis for training in criticism and research. Seminars are offered in the following: Catullus (301-302), Roman Historians (331-332), Roman Provincial Administration (341-342), The Reign of Tiberius (343344), Martial (351-352), Horace (361-362), Lucretius (371-372), and Cicero's Public Career (391-392). The seminar planned for 1946-47 is:

331-332. Roman Historians.-6 s.h.
Professor Rogers

## LINGUISTICS

FOR GRADUATES
375-376. Greek and Latin Linguistics.-6 s.h. Assistant Professor Rose 385-386. Elementary Sanskrit.-6 s.h. Assistant Professor Rose

## SEMITICS

FOR SENIORS AND GRADUATES
201-202. First Hebrew.-6 s.h.
205-206. Elementary Arabic.-6 s.h.
Professor Stinespring
207-208. Second Hebrew.-6 s.h. Professor Stinespring
FOR GRADUATES
304. Aramaic.-3 s.h.
305. Third Hebrew.-3 s.h.

Professor Stinespring
Professor Stinespring
309. History of the Ancient Near East.-3 s.h.

Professor Stinespring
315. Judaism at the Beginning of the Christian Era.-3 s.h.
320. Rabbinic Literature.-3 s.h.

RELATED COURSES IN OTHER DEPARTMENTS
Philosophy 217. Philosophy of Aristotle.-3 s.h.
Assistant Professor McLarty
Religion 217. The New Testament in Greek.-3 s.h.
Professor Clark
Religion 218. Galatians and I Corinthians.-3 s.h.
Professor Clark

Religion 220. I Peter and the Gospel of John.-3 s.h.
Religion 313. The Apostolic Fathers.-3 s.h.
Religion 314. Early Christian Apologists.-3 s.h. Professor Branscomb
Religion 316. Hellenistic Religions at the Beginning of the Christian Era. -3 s.h.

Religion 318. Text of New Testament.-3 s.h.
Professor Clark

## BOTANY

PROFESSOR BLOMQUIST, CHAIRMAN-203 biology building; PROFESSOR KRAMER, director of graduate studies- 04 biology ; professors harrar and

WOLF; ASSOCIATE PROFESSORS ADDOMS, ANDERSON, OOSTING, AND PERRY

FOR SENIORS AND GRADUATES
202. Genetics.-Prerequisites: one year of botany, zoology, or equivalent, and college algebra. 4 s.h.

Associate Professor Perry
203. Plant Cytology.-Prerequisite : one year of botany. 4 s.h.

Assoctate Professor Anderson
204. Advanced Plant Anatomy.-Prerequisite: Botany 55 or equivalent. 4 s.h.

Associate Professor Addoms
216. Botanical Microtechnique.-Prerequisite: two semesters of botany. 4 s.h.

Associate Professor Anderson
221. Structure and Classification of Fungi.-Prerequisite: two semesters of botany. 4 s.h.

Professor Wolf
225-226. Special Problems.-Credits to be arranged.
(a) Bacteriology, Mycology, and Plant Pathology. Professor Wolf
(b) Cytology. Associate Professor Anderson
(c) Ecology.
(d) Genetics.

Associate Professor Oosting
Associate Professor Perry
(e) Morphology and Anatomy of Higher Plants.

Professor Harrar and Associate Professors Addoms and Oosting
(f) Morphology and Taxonomy of Lower Groups. Professor Blomquist
(g) Physiology. Professor Kramer and Associate Professor Addoms
(h) Plant Microchemistry.
(i) Taxonomy of Higher Groups.

Associate Professor Addoms
Professor Blomquist
252. Advanced Plant Physiology.-Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 4 s.h.

Professor Kramer
255. Advanced Taxonomy.-Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h.

Professor Blomquist
256. Field Ecology.-Prerequisites: Botany 1, 2 and 52, or equivalent. 4 s.h.

Associate Professor Oosting

## FOR GRADUATES

305. Plant Geography.-Prerequisite: Botany 156 or equivalent. 4 s.h. Associate Professor Oosting
306. Structure and Classification of Bryophytes and Pteridophytes.-Prerequisite: two years of botany. 4 s.h.

Professor Blomquist
311. Structure and Classification of Algae.-Prerequisite: two years of botany. 4 s.h. Professor Blomquist
341. Methods in Plant Physiology.-4 s.h.

Professor Kramer
342. Plant Microchemistry.-2 s.h. Associate Professor Addoms

359-360. Research in Botany.-Credits to be arranged.
Professors Blomquist, Harrar, Kramer, Wolf; Associate Professors Addoms, Anderson, Oosting, and Perry
397-398. General Botanical Seminar.-2 s.h.
Professors Blomquist, Harrar, Kramer, Wolf; Associate Professors Addoms, Anderson, Oosting, and Perry

FOREST BOTANY
FOR SENIORS AND GRADUATES
224. Forest Pathology.-Prerequisites: Botany 1, 2. 3 or 4 s.h.

Professor Wolf
253. Dendrology.-Prerequisite : one year of botany. 3 s.h.

Professor Harrar

## RELATED COURSES IN OTHER DEPARTMENTS

These related courses may be counted toward a major in botany.
Forestry 257. Design of Forestry Experiments and Analysis of Data.5 s.h.

Professor Schumacher
Zoology 341. Historical and Philosophical Zoology.-2 s.h.
Professor Hargitt

## CHEMISTRY

PROFESSOR GROSS, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 219 CHEMISTRY BUILDING; PROFESSORS BIGELOW, LONDON, SAYLOR, VOSBURGH, AND WILSON ; ASSOCIATE PROFESSORS BROWN, HAUSER, HILL, AND HOBBS; ASSISTANT PROFESSOR BRADSHER

FOR SENIORS AN'D GRADUATES
215-216. Advanced Inơrganic Chemistry.-Prerequisites: Chemistry 70, 151-152, and 261-262. 6 s.h.

Professor Vosburgh and Associate Professor Hill
233. Instrumental Analysis.-Prerequisites: Chemistry 70 and one year of physics. 2 s.h.

Associate Professor Hobbs; Professors Saylor and Vosburgh
234. Physico-Chemical Methods of Analysis.-Prerequisites: Chemistry 70 and 261-262; the latter may be taken concurrently. 2 s.h.

Associate Professor Hobbs; Professors Saylor and Vosburgh
236. Theory of Analytical Chemistry.-Prerequisites: Chemistry 70 and 261-262. 1 s.h.

Professor Vosburgh
241. General Biochemistry.-Prerequisites: Chemistry 70 and 151-152. 4 s.h.

Professor Wilson and Assistant
242. Biochemistry.-Prerequisites: 241 or the permission of the Department. 4 s.h. Professor Wilson and Assistant
251. Qualitative Organic Analysis.-Prerequisite: Chemistry 151-152. 1 ot $2 \mathrm{~s} . \mathrm{h}$.

Associate Professor Hauser and Assistant
252. Advanced Organic Preparations.-Prerequisite: Chemistry 151-152. 1 or 2 s.h.

Professor Bigelow and Assistant

253-254. Advanced Organic Chemistry.-Prerequisite: Chemistry 151-152. 4 s.h. Professor Bigelow and Associate Professor Hauser

261-262. Physical Chemistry.-Prerequisites: Chemistry 70, 151-152, Physics 1-2 and Mathematics 51-52 or equivalent. 6 s.h.

Professors Gross and Saylor; Associate Professor Hobbs
265-266. Chemical Physics. Statistical Theory, Principles and Applica-tions.-8 s.h.

Professor London
267-268. Chemical Physics. Theoretical Aspects of Atomic and Molecular Structure.-8 s.h.

Professor London
271. Introduction to Research.-1 s.h.

Professors Bigelow, Gross, and Vosburgh
273-274. Seminar.-2 s.h.
Professors Bigelow, Gross, Saylor, and Vosburgh; Associate
Professors Brown, Hauser, Hill, and Hobbs;
Assistant Professor Bradsher
275-276. Research.-3 or 6 s.h.
Professors Bigelow, Gross, London, Saylor, and Vosburgh; Associate Professors Brown, Hauser, Hill, and Hobbs ;

Assistant Professor Bradsher

FOR GRADUATES
303. Thermodynamics.-3 s.h.

Professors Gross and London
304. Chemical Thermodynamics.-3 s.h.

Professors Gross, Saylor, and Vosburgh;
Assoclate Professor Hill
351-352. Advanced Synthetic Organic Chemistry.-2 s.h.
Professor Bigelow and Associate Professor Hauser
363-364. Advanced Physical Chemistry.-Prerequisites: Chemistry 261-262 or its equivalent and calculus. 6 s.h.

Professors Gross, Saylor, and Vosburgh; Associate Professors Hill and Hobbs

## RELATED COURSES IN OTHER DEPARTMENTS BIOCHEMISTRY

M241. General Biochemistry.-Prerequisites: general chemistry, organic chemistry, elementary physical and analytical chemistry, and at least one year of college biology. 6 s.h.

Dr. Perlzweig and Staff
M242. Biochemical Preparations.-Prerequisite: Biochemistry M241. 2, 3, 4 s.h.

Drs. Perlzweig, Neurath, and Handler
M243-244. Physical Chemical and Colloid Chemical Principles of Bio-chemistry.-4 s.h. Dr. Neurath

M341. Pathological Chemistry.-Prerequisites: Biochemistry M241 and Physiology M261-2.

Drs. Perlzweig, Taylor, and M. L. C. Bernheim
M343. Immunochemistry.-2 s.h.
Drs. Martin and Neurath
M363-364. Advanced Seminar in Nutrition.-Prerequisites: Biochemistry M241 and Physiology M261 or equivalents. 4 s.h.

Dr. Dann

## ECONOMICS

PROFESSOR HOOVER, CHAIRMAN-103 ADMINISTRATION BUILDING; PROFESSOR SPENGLER, DIRECTOR OF GRADUATE STUDIES- 305 GRAY; PROFESSORS BLACK, DE VYVER, RATCHFORD, AND VON BECKERATH; ASSOCIATE PROFESSORS EITEMAN, HUMPHREY, SMITH, AND SPRINGER; ASSISTANT PROFESSORS ALLEN AND WELFLING

FOR SENIORS AND GRADUATES
215. Economic Systems.-3 s.h.

Professor Hoover
216. Economic Functions of the State.-Prerequisite: Economics 215 or its equivalent. 3 s.h.

Professor Hoover
217. Population Problems and Resources.-3 s.h. Professor Spengler
218. Business Cycles. -3 s.h.
230. Public Debts in the United States.-3 s.h. Professor Ratchford
231. The Economic History of Modern Europe.-3 s.h.

Associate Professor Smith
233. State and Local Finance.-3 s.h.

Professor Ratchford
234. Federal Finance.-3 s.h.

Professor Ratchford
237-238. Statistical Methods.-Prerequisite : Economics 138 or consent of the instructor. 6 s.h. Associate Professor Springer 241-242. Value and Distribution.-6 s.h. Professor Spengler 245. Problems of Modern Industrialism.-3 s.h. Professor von Beckerath
256. Labor Legislation.-3 s.h.

Professor de Vyver
260. Social Insurance.-3 s.h.

Professor de Vyver
265. International Trade and Finance.-3 s.h. Assistant Professor Allen
268. Competitive versus Monopolistic Enterprise.-3 s.h.

Professor yon Beckerath
275-276. Advanced Industrial Accounting and Management.-5 s.h.
Professor Black
FOR GRADUATES
311-312. History of Political Economy.-6 s.h. Professor Spengler
313-314. Seminar in Economic Theory.-Prerequisite: Economics 241-242 or its equivalent. $6 \mathrm{~s} . \mathrm{h}$.

Professor Hoover
318. General Seminar in Economics.-No credit.

Staff

## related courses in other departments

Attention is called to the following courses in related departments:
Forestry 279. Economics of Forestry.-3 s.h.
Associate Professor Thomson
History 219-220. The History of the European Proletariat.-6 s.h.
Professor Carroll
Political Science 207. American Constitutional Law and Theory.-3 s.h.
Professor Wilson

## EDUCATION

PROFESSOR HOLTON, CHAIRMAN-2A WEST DUKE BUILDING; PROFESSOR BROWNELL, DIRECTOR OF GRADUATE STUDIES-lC WEST DUKE BUILDING; PROFESSORS

CARR, CHILDS, PROCTOR, AND SCATES; ASSOCIATE PROFESSOR
EASLEY; VISITING ASSISTANT PROFESSOR
VAN ALSTYNE

## ELEMENTARY EDUCATION

FOR SENIORS AND GRADUATES
207. Technique of Teaching.-3 s.h.

Professor Carr
212. Psychology of the Elementary School Subjects.-3 s.h.
[Not offered in 1946-47]
Professor Carr
222. The Curriculum and Materials of the Elementary Grades.-3 s.h.
[Not offered in 1946-47]
Professor Carr
232. Elementary School Supervision.-3 s.h.

Professor Carr
FOR GRADUATES
305. The Nature, Function, and Reorganization of the Curriculum.-3 s.h.

Professor Carr

## EXPERIMENTAL EDUCATION AND EDUCATIONAL PSYCHOLOGY

FOR SENIORS AND GRADUATES
208A. Mental Tests and Applications.-Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. 3 s.h. Assistant Professor Van Alstyne
208B. Practicum.-2 s.h.
Assistant Professor Van Alstyne
209. Statistical Methods Applied to Education.-3 s.h.

Professor Scates
216. Psychological Principles of Secondary Education.-3 s.h.
[Not offered in 1946-47]
Professor Childs
218. Educational Implications of Genetic Psychology.-Prerequisite: six semester hours of psychology or educational psychology. 3 s.h.

Professor Brownell
219. Experimental Education.-3 s.h.

Professor Brownell
227. The Psychology of Learning: Problems.-3 s.h.

Associate Professor Easley
228. The Psychology of Learning: Theoretical and Experimental.-Prerequisite: course 227 or its equivalent. 3 s.h. Associate Professor Easley
237. Investigations in Reading. - 3 s.h.

Professor Carr
247. Investigations in Arithmetic.-3 s.h.

Professor Brownell
258. Educational Measurements.-Prerequisite: twelve semester hours in the Department, including a course in educational psychology. 3 s.h.

Professor Scates
FOR GRADUATES
307-308. Seminar in Educational Psychology.-4 s.h. Professor Brownell [Not offered in 1946-47]
309-310. Research in Educational Psychology.-3 to 6 s.h.
Professor Brownell
317. The Psychological Principles of Education.-3 s.h.

Professor Brownell
320. Advanced Educational Statistics.-3 s.h.
338. Research in Reading.-3 s.h.
[Not offered in 1946-47]
339. Research Course in Educational Tests.-Prerequisite: the equivalent of course $258.3 \mathrm{~s} . \mathrm{h}$.
[Not offered in 1946-47]
348. Research in Arithmetic.-3 s.h. Professor Brownell
[Not offered in 1946-47]

## HISTORY AND PHILOSOPHY OF EDUCATION

FOR SENIORS AND GRADUATES
200. Introduction to the Philosophy of Education.- 3 s.h.
[Not offered in 1946-47]
Professor Holton
214. History of Education in the United States.-3 s.h. Professor Holton [Not offered in 1946-47]
244. Studies in the Historical Development of Public School Administration. -3 s.h.

Professor Holton
[Not offered in 1946-47]
254. History of Secondary Education in the United States.-3 s.h.
[Not offered in 1946-47] Professor Proctor
264. Recent Movements in American Education.- 3 s.h. Professor Holton FOR GRADUATES
304. The School as an Institution.-3 s.h.

Professor Holton
PUBLIC SCHOOL ADMINISTRATION
FOR SENIORS AND GRADUATES
203. Principles of School Administration.-Prerequisites: Education 103 and 58 , or six semester hours of equivalent work in education. 3 s.h.

Professor Proctor
213. Problems in the Organization and Administration of the Elementary School.-3 s.h.
[ Not offered in 1946-47]
233. Administrative Pupil-Accounting.-3 s.h. Professor Proctor
234. Secondary School Organization and Administration. - 3 s.h.

Professor Proctor
253. Legal Phases of School Administration.-3 s.h. Professor Holton
[Not offered in 1946-47]

| FOR GRaduates |  |
| :--- | :--- |
| 323. Public School Finance.-3 s.h. | Professor Proctor |
| 343. State and County School Administration.-3 s.h. | Professor Proctor |
| 363. City School Administration.-3 s.h. | Professor Proctor |

SECONDARY EDUCATION AND EDUCATIONAL SOCIOLOGY
FOR SENIORS AND GRADUATES
205. Curriculum Problems in Secondary Education.-3 s.h.
[Not offered in 1946-47]
Professor Childs
206. Sociological Foundations of the Secondary School Subjects.-Prerequisite: six semester hours in education, including course 105. 3 s.h.

Professor Childs
215. Educational and Vocational Guidance.-Prerequisite : twelve semester - hours in the Department, including course 105 or course 206.3 s.h. Professor Childs
225. The Teaching of History and the Social Studies.-3 s.h.
[Not offered in 1946-47] Associate Professor Manchester
246. The Teaching of Mathematics.-3 s.h. Professor Rankin [Not offered unless justified by enrollment]
266. The Teaching of High-School French.-3 s.h.

Professor Webb

## METHODOLOGY OF RESEARCH

FOR GRADUATES
300. Introduction to Educational Research.-3 s.h. Professor Scates
301. Methods of Educational Research: Seminar.-3 s.h.

Professors Holton, Carr, Childs, and Proctor
RELATED COURSES IN OTHER DEPARTMENTS
FOR MAJORS IN EDUCATIONAL PSYCHOLOGY, ELEMENTARY EDUCATION, AND SECONDARY EDUCATION
Psychology 206. Social Psychology.-3 s.h.
Professor Adams and Assistant Professor Koch
Psychology 207. Psychology of Memory, Thinking, Perceiving.-Second semester. 3 s.h.

Professor Zener
Psychology 209. Experimental Methods in Human Psychology.-4 s.h.
Professor Zener
Psychology 212. Physiological Psychology.-3 s.h. Professor Zener
Psychology 215. Developmental Psychology.-3 s.h. Professor Adams
Psychology 226. Contemporary Schools of Psychology.-3 s.h.
Professor Zener
Psychology 306. Seminar in Child Psychology.-2 or 3 s.h.
Professor Adams
Psychology 309. Theory of Learning.-3 s.h.
Professor Adams
Psychology 310. Seminar: Selected Problems in the Dynamics of Behavior. -3 s.h.

Professor Zener
Sociology 212. Child Welfare.-3 s.h.
Professor Jensen
Sociology 213. Constructive Social Policies.-2 s.h.
Sociology 319. Principles of Sociology.-3 s.h.
Professor Jensen
Professor Jensen
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen
FOR MAJORS IN PUBLIC SChool administration
Economics 217. Population Problems and Resources.-3 s.h.
Professor Spengler
Economics 230. Public Debts in the United States.-3 s.h.
Professor Ratchford
Economics 233. State and Local Finance.-3 s.h. Professor Ratchford
Political Science 209. State and Local Government in the United States.3 s.h.

Professor Rankin

Political Science 230. American Political Institutions.-3 s.h.
Professor Rankin
Political Science 291. Municipal Government.-3 s.h. Professor Rankin
Political Science 292. Municipal Administration.-3 s.h.
Professor Rankin
Sociology 213. Constructive Social Policies.-2 s.h. Professor Jensen
Sociology 215. Rural Sociology.-3 s.h.
Sociology 216. Urban Sociology.-3 s.h. Professor Thompson
Professor Thompson
Sociology 218. Community and Society.-3 s.h. Professor Thompson
For majors in history and philosophy of education
History 209-210. Constitutional History of the United States, 1763-1860.6 s.h.

Assistant Professor Still
Philosophy 205. The Philosophy of History.- 3 s.h. Professor Widgery
Philosophy 208. Political Philosophy.-3 s.h. Professor Patterson
Philosophy 223. Contemporary Philosophy.-Second semester. 3 s.h.
Professor Widgery
Religion 393. Religious Thought in Colonial America.-3 s.h.
Professor Smith
Religion 394. American Religious Thought in the Nineteenth Century.3 s.h.

Professor Smith
Sociology 236. Social Ethics.-3 s.h.
Sociology 319. Principles of Sociology.-3 s.h.
Professor Hart
Professor Jensen
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen

## ENGLISH

professor white, chairman-2G5 west duke building; professor hubbell, director of graduate studies- 105 east duke building; professors baUm, gilbert, gohdes, and irving; associate professors leary, talbert, and ward
201-202. Anglo-Saxon.-6 s.h. Professor Baum
203-204. Chaucer.-6 s.h. Professor Baum
205-206. Middle English.-6 s.h. Professor Baum
[Not offered in 1946-47]
207-208. English Literature, 1400-1550.-6 s.h. Professor Baum
[Not offered in 1946-47]
209. English Literature Other than Drama, 1550-1625.-3 s.h.

Professor Gilbert
210. English Literature Other than Drama, 1625-1700.-3 s.h.
[Not offered in 1946-47]
Associate Professor Ward
215-216. Elizabethan Drama.-6 s.h.
Professor Gilbert and Associate Professor Talbert
219-220. The Eighteenth Century.-6 s.h.
Professor Irving
[Not offered in 1946-47]
221-222. English Literature of the Early Nineteenth Century.- 6 s.h.
Professor White
223-224. English Literature of the Later Nineteenth Century.-6 s.h.
[In 1946-47 only 224 will be offered]
Professor Baum
227. Literary Criticism.-3 s.h.
Professor Gilbert
229-230. American Literature, 1800-1870.-6 s.h. Professor Hubbell
231-232. Special Studies in American Literature.-6 s.h.
[Not offered in 1946-47]
Professor Gohdes
233-234. American Literature since 1870.-6 s.h. Professor Gohdes
235-236. History of American Drama.-6 s.h. Associate Professor Leary
237. English Drama, 1642-1800.-3 s.h. Associate Professor Ward
[Not offered in 1946-47]
247-248. American Literature of the Colonial Period.-6 s.h.
[Not offered in 1946-47]
Associate Professor Leary
269-270. Southern Literature to 1865.-6 s.h.
Professor Hubbell
[In 1946-47 only 269 will be offered, in the second semester. 3 s.h.]

FOR GRADUATES
349. Seminar Courses.-3 s.h.
(a) Shakespeare. Associate Professor Talbert
(b) Milton, or Spenser.
(c) Dryden.
(d) Pope, or Johnson.
(e) Shelley, or Wordsworth, or Byron.
(f) Arnold, or Tennyson.
(g) Poe, or Hawthorne.
(h) Emerson, or Whitman.

Professor Gilbert
Associate Professor Ward
Professor Irving
Professor White
Professor Baum
Professor Hubbell
Professor Gohdes

In 1946-47 four of these courses will be given, two in the autumn semester and two in the spring.

359-360. Research Courses.-3 or 6 s.h.
(a) The Early Language and Literature.

Professor Baum
(b) Elizabethan Literature.
(c) The Seventeenth Century.

Professor Gilbert
Professor Gilbert and Associate Professor Ward

Professor Irving
(d) The Eighteenth Century.
(e) The Early Nineteenth Century.
(f) The Later Nineteenth Century.
(g) American Literature to 1870.
(h) American Literature since 1870.
400. Special Studies.

Professor White
Professor Baum
Professor Hubbell
Professor Gohdes
Members of the Graduate Staff

## RELATED COURSES IN OTHER DEPARTMENTS

The attention of students in English is directed to the following courses:
German 301-302. Gothic-Middle High German.-6 s.h. Professor Vollmer Greek 201-202. Greek Tragedy.-6 s.h.

Assistant Professor Rose History 221-222. The Age of the Renaissance.-6 s.h.

Associate Professor Nelson

History 223-224. Medieval Institutions and Culture.-6 s.h.
Associate Professor Quynn
History 337. Social and Economic Life of the Old South.-4 s.h.
Professor Sydnor
Philosophy 201-202. The Philosophy of Art.-6 s.h.
Philosophy 213-214. History of Aesthetics.-6 s.h.
Professor Gilbert

Psychology 202. Psychology of Aesthetics.-3 s.h.
Professor Gilbert

Romance Languages 219. Old French.-3 s.h.
Professor Lundholm
Professor Cowper

## FORESTRY

PROFESSOR KORSTIAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-FEW QUADRANGLE, HOUSE GG-010; PROFESSORS BEAL, HARRĀR, KRAMER, MAUGHAN, SCHUMACHER, AND WOLF; ASSOCIATE PROFESSORS COILE AND THOMSON

FOR SENIORS AND GRADUATES
224. Forest Pathology.-Prerequisites: Botany 1 and 2, and Forestry 253, or equivalents. 4 s.h. Professor Wolf
231. Forest Entomology.-3 s.h. Professor Beal
251. Sampling Methods in Forestry.-Prerequisite: Forestry S151. 2 s.h.

Professor Schumacher
252. Forest Mensuration.-Prerequisite: Forestry 251. 2 s.h.

Professor Schumacher
253. Dendrology.-Prerequisite : one year of botany. 3 s.h.

Professor Harrar
257. Design of Forestry Experiments and Analysis of Data.-5 s.h.

Professor Schumacher
259. Wood Anatomy and Properties.-Prerequisites: one year of botany and Chemistry 1 and 2, or equivalent. 3 s.h.

Professor Harrar
261. Forest Soils.-Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents; physical geology and analytical chemistry are also desirable. 3 s.h.

Assoctate Professor Coile
264. Silvics.-Desirable prerequisites: plant physiology, plant ecology, and Forestry 253 and 261, or eguivalents. 3 s.h.

Professor Korstian
276. Forest Policy.-2 s.h.

Associate Professor Thomson
279. Economics of Forestry.-Prerequisite : at least one course in the principles of economics. 3 s.h.

Associate Professor Thomson

## FOR GRADUATES

323-324. Advanced Forest Pathology.-Prerequisites : plant physiology and forest pathology. Credits to be arranged.

Professor Wolf
351-352. Advanced Physiology of Forest Trees.-Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged.

Professor Kramer
354. Forest Soil Fertility.-Prerequisites: Forestry 251 and 261, and plant physiology, or equivalents; bacteriology and analytical and organic chemistry are desirable. 3 s.h.

Associate Professor Coile
356. Economic Forces in Forestry.-Prerequisites: Forestry 279 and 282, or equivalents; courses in economic theory are desirable. 2 s.h.

357-358. Researh in Forestry.-Credits to be arranged.
a. Silvics.-Prerequisites: Forestry 253, 261, and 264, or equivalents. Professor Korstian
b. Forest Soils.-Prerequisite : Forestry 261 or equivalent.

Associate Professor Coile
d. Forest Management.-Prerequisite : Forestry 281 or equivalent.

Professor Maughan
e. Forest Economics.-Prerequisite : Forestry 279 or equivalent.

Associate Professor Thomson
f. Wood Anatomy and Properties.-Prerequisites: Forestry 259 and 260, or equivalents.

Associate Professor Harrar
g. Forest Mensuration.-Prerequisites: Forestry S151, 251, and 252, or equivalents.

Professor Schumacher
h. Forest Entomology.-Prerequisite : Forestry 231 or equivalent.

Professor Beal

## GERMANIC LANGUAGES AND LITERATURE

Professor yollmer, chairman and director of graduate studies- 205 page AUDITORIUM; PROFESSOR KRUMMEL

201-202. Goethe.-6 s.h.
203-204. Leibnitz to Romanticism.-6 s.h.
205-206. Middle High German.-6 s.h.
207-208. German Romanticism.-6 s.h.
209-210. Kleist, Grillparzer, and Hebbel.-6 s.h.
211-212. Heinrich Heine.-6 s.h.
213-214. Literature of the Empire. 1871-1914.-6 s.h. For graduates only
301-302. Gothic-Miđđle High German.- 6 s.h. Professor Vollmer 303-304. German Seminar.-Credit to be arranged.

Professors Vollmer and Krummel

## related courses in other departments

History 217-218. Europe since 1870.-6 s.h.
Professor Carroll
History 221-222. The Age of the Renaissance.-6 s.h.
Associate Professor Nelson
History 223-224. Medieval Institutions and Culture.-6 s.h.
Assistant Professor Quynn
History 225-226. The Age of the Reformation.-6 s.h.
Associate Professor Nelson
Philosophy 201-202. The Philosophy of Art.-6 s.h Professor Gilbert
Philosophy 213-214. History of Aesthetics.-6 s.h. Professor Gilbert
Philosophy 223. Contemporary Philosophy.-Second semester. 3 s.h.
Professor Widgery
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen

## HISTORY

PROFESSOR LAPRADE, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-2B WEST DUKE BUILDING; PROFESSORS CARROLL, CLYDE, LANNING, AND SYDNOR; ASSOCIATE PROFESSORS CURTISS, MANCHESTER, NELSON, ROBERT, AND WOODY; ASSISTANT PROFESSORS QUYNN AND STILL

AMERICAN HISTORY
FOR SENIORS AND GRADUATES
203-204. The United States, 1850-1900.-6 s.h. Associate Professor Woody [Not offered in 1946-47]
207-208. Social and Cultural History of the United States.-6 s.h.
Associate Professor Robert
209-210. Constitutional History of the United States, 1763-1860.-6 s.h.
[Not offered in 1946-47] Assistant Professor Still
215-216. Foreign Policy and Diplomacy of the United States.-6 s.h.
[Not offered in 1946-47]
Professor Clyde
230. The Portuguese Empire and the Rise of Brazil. -3 s.h.

Associate Professor Manchester
231. The Hispanic Colonies of the New World.-3 s.h.

Professor Lanning
232. The Hispanic American Republics of the New World.-3 s.h.

Professor Lanning
233. The Cultural and Institutional History of Colonial Hispanic America. -3 s.h.

Professor Lanning
[Not offered in 1946-47]
234. Political and Social Problems in the Hispanic American Republics.3 s.h.

Professor Lanning
[Not offered in 1946-47]
263-264. American Colonial History and the Revolution, 1606-1783.-6 s.h. [Not offered in 1946-47] Associate Professor Woody
265-266. The Westward Movement in the United States.-6 s.h.
Assistant Professor Still FOR GRADUATES
315. Seminar in Southern History.-2 s.h.

Professor Sydnor
321. Seminar in the History of Spain and the Spanish-American Colonies.

Professor Lanning
336. The South in Federal Politics, 1789-1860.-4 s.h. Professor Sydnor [Not offered in 1946-47]
337. Social and Economic Life of the Old South. - 4 s.h. Professor SydNOR EUROPE AND THE FAR EAST

FOR SENIORS AND GRADUATES
217-218. Europe since 1870.-6 s.h.
Professor Carroll
219-220. The History of the European Proletariat.-6 s.h.
[Not offered in 1946-47]
Professor Carroll
221-222. The Age of the Renaissance.- 6 s.h. Associate Professor Nelson
223-224. Medieval Institutions and Culture. -6 s.h.
Assistant Professor Quynn

225-226. The Age of the Reformation.-6 s.h.
[Not offered in 1946-47]
Associate Professor Nelson
241-242. The Foreign Relations and Diplomacy of the United States in the Pacific and the Far East.-6 s.h.

Professor Clyde
261-262. Russia in the Twentieth Century.-6 s.h.
Associate Professor Curtiss
FOR GRADUATES
305. Seminar in the History of England and the British Empire.-2 s.h. Professor Laprade
317. Seminar in Recent European History.-2 s.h. Professor Carroll
325. British Nationality and Public Opinion.-4 s.h. Professor Laprade
327. Modern Phases of the English Constitution.-4 s.h.
[Not offered in 1946-47]
Professor Laprade
343. Seminar in the History of American Foreign Relations and the Far East.-2 s.h.

Professor Clyde

## HISTORIOGRAPHY AND THE TEACHING OF HISTORY

FOR SENIORS AND GRADUATES
211. The Teaching of History and the Social Studies.-3 s.h.

Associate Professor Manchester
FOR GRADUATES
320. Historiography.-4 s.h. Associate Professor Nelson [Not offered in 1946-47]
329. Historiography of the South.-4 s.h. Associate Professor Woody [Not offered in 1946-47]

## RELATED COURSES IN OTHER DEPARTMENTS

Economics 215. Economic Systems.-3 s.h.
Professor Hoover
Economics 216. Economic Functions of the State.-3 s.h.
Professor Hoover
Economics 231. Economic History of Modern Europe.-3 s.h.
Associate Professor Smith
Economics 311-312. History of Political Economy.-6 s.h.
Professor Spengler
Political Science 223. Political Thought to the Seventeenth Century.3 s.h. Professor Wilson and Associate Professor Hallowell

Political Science 224. Modern Political Theory.-3 s.h.
Professor Wilson and Associate Professor Hallowell
Religion 309. History of the Ancient Near East.-3 s.h.
Professor Stinespring
Religion 393. Religious Thought in Colonial America.-3 s.h.
Professor Smith
Religion 394. American Religious Thought in the Nineteenth Century.3 s.h.

Professor Smith
Sociology 237. Indians of North America.-3 s.h.
Sociology 238. Anthropological Backgrounds of Latin America.-3 s.h.
Sociology 239. Acculturation and Cultural Synthesis.-3 s.h.
Associate Professor Gililin

Sociology 240. The Peoples of Africa.-3 s.h.
Associate Professor Gillin
Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 03 GRAY BUILDING; PROFESSORS CARLITZ, ELLIOTT, RANKIN, ROBERTS, AND THOMAS; ASSOCIATE PROFESSOR DRESSEL

FOR SENIORS AND GRADUATES
201. History of Mathematics.-Prerequisite: differential calculus. 3 s.h. Professor Rankin
204. Teaching of Mathematics.- 3 s.h. Professor Rankin
226. Galois Theory of Equations.-Prerequisite: calculus. 3 s.h.

Professor Thomas
227-228. Theory of Numbers.-Prerequisite : calculus. 6 s.h.
Professor Carlitz
229-230. Algebraic Numbers.-Prerequisite : theory of equations. $6 \mathrm{~s} . \mathrm{h}$.
Professor Carlitz
235-236. Modern Algebra.-Prerequisite: calculus. 6 s.h.
Professor Carlitz
250. Modern Geometry.-3 s.h.

Professor Thomas
252. Non-Euclidean Geometry.-Prerequisite : calculus. 3 s.h.

Professor Roberts
255-256. Projective Geometry.-Prerequisite: calculus. 6 s.h.
Professor Thomas
271-272. Introductory Topology.-Prerequisite: calculus. 6 s.h.
Professor Roberts
275. Probability.-Prerequisite : calculus. 3 s.h.

Associate Professor Dressel
285-286. Mathematical Analysis for Physicists.-Prerequisite: calculus. 6 s.h.

Associate Professor Dressel
287. Mathematical Logic.-3 s.h.

Professor Carlitz
288. Foundations of Mathematics.-3 s.h.

Professor Carlitz
291-292. Theory of Functions.-Prerequisite: calculus. 6 s.h.
Professor Gergen
FOR GRADUATES
301-302. Algebraic Geometry.--Prerequisite: Mathematics 255-256. 6 s.h.
Professor Thomas
325-326. Real Variable.-Prerequisite: Mathematics 291-292. 6 s.h.
Professor Gergen
331-332. Complex Variable.-Prerequisite: Mathematics 291-292. 6 s.h.
333-334. Analytic Theory of Numbers.-Prerequisite: Mathematics 291292. 6 s.h.

Professor Carlitz
337-338. Existence Theorems.-Prerequisite: Mathematics 291-292. 6 s.h. Professor Thomas

341-342. Integral Equations.-Prerequisite: differential equations and second course in calculus. $6 \mathrm{~s} . \mathrm{h}$.

Professor Elliott

343-344. Ordinary Differential Equations.-Prerequisite: Mathematics 291292. 6 s.h. Professor Thomas

353-354. Trigonometric Series.-Prerequisite : Mathematics $325-326.6$ s.h.
Professor Gergen
371-372. Dimension Theory.-Prerequisite: Mathematics 271-272. 6 s.h.
Professor Roberts
373-374. Continuous Transformations.-Prerequisite : Mathematics 271-272. 6 s.h.

Professor Roberts
382. Potential Theory.-Prerequisite: Mathematics 325-326. 3 s.h.

Professor Gergen

## PHILOSOPHY

PROFESSOR WIDGERY, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 303 divinity SCHOOL; PROFESSORS GILBERT, PATTERSON, AND SMITH; ASSOCIATE PROFESSOR LEONARD; ASSISTANT PROFESSOR MCLARTY
Courses normally given in alternate years marked with a dagger are not offered in 1946-47. Those marked with an asterisk are offered in 1946-47.

FOR SENIORS AND GRADUATES
$\dagger$ 201-202. The Philosophy of Art.-6 s.h. Professor Gilibert
*203. The Philosophy of Conduct.-3 s.h.
Professor Patterson
Professor Widgery
Professor Patterson
Professor Widgery

Professor Gilbert
$\dagger$ 213-214. History of Aesthetics.-6 s.h.
215. Christian Ethics I.-3 s.h.
216. Christian Ethics II.-3 s.h.
*217. The Philosophy of Aristotle.-Prerequisite: 105. 3 s.h.
Assistant Professor McLarty
$\dagger$ 223. Contemporary Philosophy.-3 s.h.
Professor Widgery
*226. The History of Ethics.-3 s.h. Professor Patterson
*231. Philosophy of Science I.-3 s.h. Associate Professor Leonard
*232. Philosophy of Science II.-Prerequisite : 231 or 3 s.h. of logic. 3 s.h.
Associate Professor Leonard
*236. Oriental Philosophy I. Chinese Philosophy.-3 s.h.
$\dagger$ 238. Oriental Philosophy II. Indian Philosophy.-3 s.h.
Professor Widgery
$\dagger$ 241. Logic. -3 s.h.
$\dagger$ 242. Scientific Methodology.-3 s.h.
$\dagger$ 248. Philosophy of Values. -2 s.h.
FOR GRADUATES
301-302. Seminar in Philosophy.-4 s.h.
$\dagger$ 305. Seminar: Spinoza.-3 s.h.
*307. Seminar: Kant.-3 s.h.
$\dagger$ 308. Seminar: Hegel.-3 s.h. Professor Gilbert
$\dagger$ 310. Seminar: Logical Positivism and Its Relation to Contemporary Movements in Philosophy and Science.-2 s.h.

Associate Professor Leonard
$\dagger$ 315. Seminar in Leibnitz.-3 s.h.
319. Religious Thought in Colonial America.-3 s.h. Professor Smith
320. American Religious Thought in the Nineteenth Century.-3 s.h.

Professor Smith
323. Seminar in American Religious Thought.-2 s.h. Professor Smith *325. Seminar: Locke, Berkeley, Hume.-2 s.h.

Associate Professor Leonard
326. Seminar: Christian Ethics.-2 s.h.

Professor Smith
331-332. Seminar in Special Fields of Philosophy.-2 s.h. each semester.
(a) Logic; (aa) Philosophy of Science. Associate Professor Leonard
(b) Ethics; (bb) Political Philosophy.

Professor Patterson
(c) Aesthetics.
(d) Philosophy of Religion; (dd) History. Professor Widgery

## related courses in other departments

Education 200. Introduction to the Philosophy of Education.-3 s.h.
Professor Holton
Greek 209-210. Plato.-6 s.h.
Assistant Professor Way
History 221-222. The Age of the Renaissance. -6 s.h.
Associate Professor Nelson
Mathematics 287. Mathematical Logic.-3 s.h. Professor Carlitz
Mathematics 288. Foundations of Mathematics.-3 s.h. Professor Carlitz
Physics 213-214. Contemporary Physics.-8 s.h.
Associate Professor Constant and Professor Nielsen
Political Science 223. Political Thought to the Seventeenth Century.3 s.h. Professor Wilson and Associate Professor Hallowell

Political Science 224. Modern Political Theory.-3 s.h.
Professor Wilson and Associate Professor Hallowell
Psychology 228. Psychology of Belief.-3 s.h. Professor Lundholm
Religion 221. Platonism and Christianity.-3 s.h.
Associate Professor Cushman
Religion 222. Theology and Philosophy in the Nineteenth Century.-3 s.h. Associate Professor Cushman

Sociology 320. History of Sociological Theory.-3 s.h. Professor Jensen
Zoology 341. Historical and Philosophical Zoology.-2 s.h.
Professor Hargitt

## PHYSICS

PROFESSOR NIELSEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIFS- 111
PHYSICS BUILDING; PROFESSORS HATLEY, NORDHEIM, AND SPONER; ASSOCIATE PROFESSORS CONSTANT AND GORDY; ASSISTANT PROFESSOR SMITH
201. Mechanics.-3 s.h.

203-204. Electricity and Magnetism.-6 s.h.
Associate Professor Constant and
Professor Nielsen
205. Spectroscopy.-4 s.h.

Associate Professor Gordy and Professor Sponer
207. Sound and Acoustics.-3 s.h. Associate Professor Constance and Professor Nielsen
213-214. Contemporary Physics.-8 s.h.
Associate Professor Constant and Professor Nielsen
217-218. Advanced Physics Laboratory.-2-6 s.h.
The Staff
219. Electron Tubes and Their Application.-4 s.h. Professor Nielsen 221-222. Introduction to Theoretical Physics.-8 s.h.

Associate Professor Constant
FOR GRADUATES
303. Thermodynamics.-3 s.h. Professors Gross and Sponer
305. Kinetic Theory of Matter.-3 s.h.

Professor Sponer
307. Advanced Dynamics.-3 s.h. Professor Nordheim
308. Theory of Electricity and Magnetism.-3 s.h. 315-316. Principles of Quantum Theory.-6 s.h.
319. Electrodynamics.-3 s.h.
[Not offered in 1946-47]
320. Theory of Electrons.-3 s.h.
323. Theory of Atomic Spectra.-3 s.h.
324. Theory of Molecular Spectra.-3 s.h.
340. Structure of Matter.-3 s.h.

Professor Nordheim
Professor Nordheim
Professor Nordheim

Professor Nordheim
Professor Sponer
Professor Sponer
Professor Sponer
341. Advanced Topics in Quantum Theory.-Prerequisite: Physics 315316. 3 s.h.

Professor Nordheim
343-344. Radioactivity and Nuclear Structure.-6 s.h. Professor Nielsen [Not offered in 1946-47]

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351-352. Seminar.-2 s.h. StafF
353-354. Thesis Seminar.-6 s.h. Staff
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## POLITICAL SCIENCE

PROFESSOR WILSON, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-311
LIBRARY; PROFESSORS COLE, RANKIN, AND VON BECKERATH; ASSOCIATE PROFESSORS GIBSON, HALLOWELL, LINEBARGER, AND SHIPMAN

FOR SENIORS AND GRADUATES
207. American Constitutional Law and Theory.-3 s.h. Professor Wilson 209. State and Local Government in the United States.-3 s.h.

Professor Rankin

Associate Professor Linebarger
212. International Politics of the Far East.-3 s.h.
[Not offered in 1946-47]
Associate Professor Linebarger
223. Political Thought to the Seventeenth Century.-3 s.h.

Professor Wilson and Associate Professor Hallowell
224. Modern Political Theory.-3 s.h.

Professor Wilson and Associate Professor Hallowell
225. Comparative Government.- 3 s.h.

Professor Cole and Associate Professor Hallowell 226. Comparative Government.-3 s.h.

Professor Cole and Associate Professor Hallowell 227-228. International Law.-6 s.h. Professor Wilson 229. Recent and Contemporary Political Theory.-3 s.h.

Professor Cole and Associate Professor Hallowell
230. American Political Institutions.-3 s.h. Professor Rankin 241-242. The Administrative Process.-6 s.h.

Associate Professor Shipman 244. Administrative Law.-3 s.h. Associate Professor Shipman 252. Spanish-American Constitutionalism-3 s.h.

Associate Professor Gibson
271. Sociopolitics and Capitalism.-3 s.h.

Professor von Beckerath
291. Municipal Government.-3 s.h. Professor Rankin
292. Municipal Administration.-3 s.h. Professor Rankin

FOR GRADUATES
310. Seminar in State Government.-3 s.h. Professor Rankin 311. Seminar in Far Eastern Politics.-3 s.h.
[Not offered in 1946-47] Associate Professor Linebarger
325. Seminar in Comparative Government.-3 s.h. Professor Cole
328. Seminar in International Law.-3 s.h. Professor Wilson
[Not offered in 1946-47]
341. Seminar in Public Administration.-3 s.h.
[Not offered in 1946-47]

## related courses in other departments

Economics 216. Economic Functions of the State.-3 s.h.
Professor Hoover
Economics 233. State and Local Finance.-3 s.h. Professor Ratchford
Economics 234. Federal Finance.-3 s.h.
Professor Ratchford
Economics 237-238. Statistical Methods.-6 s.h.
Associate Professor Springer
Economics 265. International Trade and Finance.-3 s.h.
Assistant Professor Allen
History 215-216. Foreign Policy and Diplomacy of the United States. 6 s.h.

Professor Clyde

History 217-218. Europe since 1870.-6 s.h.
Professor Carroll

History 234. Political and Social Problems in the Hispanic American Republics.-3 s.h.

Professor Lanning
Philosophy 208. Political Philosophy.-3 s.h.
Professor Patterson

## PSYCHOLOGY

PROFESSOR LUNDHOLM, CHAIRMAN-201 SCIENCE BUILDING; PROFESSOR ZENER, DIRECTOR OF GRADUATE STUDIES-217A SCIENCE BUILDING;

PROFESSORS ADAMS AND RHINE; ASSISTANT
PROFESSOR KOCH
FOR SENIORS ANN GRADUATES
202. Psychology of Aesthetics.-3 s.h.

Professor Lundholm
[Not offered in 1946-47]
203. Conation and Our Conscious Life.-3 s.h. Professor Lundholm
204. Motivation and Learning.-3 s.h. Professor Zener
206. Social Psychology.-3 s.h. Assistant Professor Коch
207. Psychology of Memory, Thinking, Perceiving.-3 s.h.
[Not offered in 1946-47]
Professor Zener
209. Experimental Methods in Human Psychology.-4 s.h.

Professor Zener
212 Physiological Psychology.-3 s.h.
Professor Zener
215. Developmental Psychology.-3 s.h.

Professor Adams
223. Abnormal Psychology.-3 s.h.

Professor Lundholm
226. Psychology: Historical and Theoretical.-3 s.h. Professor Zener [Not offered in 1946-47]
228. Psychology of Belief.-3 s.h. Professor Lundholm
[Not offered in 1946-47]
FOR GRADUATES
302. Seminar.-3 s.h.
[Not offered in 1946-47]
303-304. Research.-2 or 3 s.h. Professors Adams. Lundholm, Rhine, and Zener
306. Seminar in Child Psychology (Clinical).-2 or 3 s.h.

Professor Adams
307. Seminar in Psychology of Personality.-3 s.h. Professor Rhine [Not offered in 1946-47]
309. Theory of Learning.-3 s.h. Professor Adams [Not offered in 1946-47]
310. Seminar: Selected Problems in the Dynamics of Behavior.-3 s.h. Professor Zener
313. Seminar in Parapsychology.-3 s.h.

Professor Rhine

## RELATED COURSES IN OTHER DEPARTMENTS

Education 208A. Mental Tests and Applications.-3 s.h.
Assistant Professor Van Alstyne
Education 208B. Practicum.-2 s.h. Assistant Professor Van Alstyne Education 209. Statistical Methods Applied to Education.-3 s.h.

Professor Scates

Education 218. Educational Implications of Genetic Psychology.-3 s.h.
Professor Brownell.
Education 227. The Psychology of Learning: Problems.-3 s.h.
Associate Professor Easley
Education 228. The Psychology of Learning: Theoretical and Experi-mental.-3 s.h.

Associate Professor Easley
Education 258. Educational Measurements.-3 s.h. Professor Scates
Education 317. The Psychological Principles of Education.-3 s.h.
Professor Brownell
Education 320. Advanced Educational Statistics.-3 s.h. Professor Scates
Philosophy 223. Contemporary Philosophy.-3 s.h. Professor Widgery
Philosophy 231. Philosophy of Science I.-3 s.h.
Associate Professor Leonard
Philosophy 232. Philosophy of Science II.-3 s.h.
Associate Professor Leonard
Philosophy 241. Logic.-3 s.h. Associate Professor Leonard
Philosophy 242. Scientific Methodology.-3 s.h.
Associate Professor Leonard
Sociology 205. Social Pathology.—3 s.h. Professor Jensen
Sociology 206. Criminology.-3 s.h. Professor Jensen
Sociology 212. Child Welfare.-3 s.h. Professor Jensen
Sociology 217. Race and Culture.-3 s.h. Professor Thompson
Sociology 350. Seminar in Applied Sociology.-1 to 3 s.h.
Professor Jensen
Zoology 229. Endocrinology.-4 s.h. Assistant Professor Jeffers
Zoology 321. General Physiology.-4 s.h.
Zoology 324. Advanced Physiology.-4 s.h.
Zoology 341. Historical and Philosophical Zoology.-2 s.h.
Professor Hargitt
Zoology 351-352. Zoological Journal Club.-2 s.h.
Staff

## RELIGION

PROFESSOR SMITH, DIRECTOR OF GRADUATE STUDIES-302 DIVINITY SCHOOL; PROFESSORS BRANSCOMB, CLARK, PETRY, SPENCE, AND STINESPRING; ASSOCIATE PROFESSOR CUSHMAN; ASSISTANT PROFESSOR BEACH, AND DR. YOUNG

## FIELD I. BIBLICAL STUDIES

201-202. First Hebrew.-6 s.h.
205-206. Arabic.-6 s.h.
[Not offered in 1946-47]
207-208. Second Hebrew.-6 s.h.
217. The New Testament in Greek.-3 s.h.
218. Galatians and I Corinthians.-3 s.h.
[Not offered in 1946-47]

Professor Stinespring
Professor Stinespring

Professor Stinespring
Professor Clark
Professor Clark
220. I Peter and the Gospel of John.-3 s.h.

Professor Clark
301. The Religious Thought of Post-Exilic Judaism.-Prerequisite: Old Testament 203-304. 3 s.h.

Dr. Young
304. Aramaic.-3 s.h. Professor Stinespring
305. Third Hebrew.-3 s.h. Professor Stinespring
309. History of the Ancient Near East.-3 s.h. Professor Stinespring [Not offered in 1946-47]
310. Old Testament Prophecy.-3 s.h. Professor Stinespring
311. The Life and Teachings of Jesus.-Prerequisite: New Testament 213-214. 3 s.h.

Professor Branscomb
312. New Testament Theology.-Prerequisite: New Testament 213-214. 3 s.h.
313. The Apostolic Fathers.-3 s.h.
314. Early Christian Apologists.-3 s.h.

Dr. Young

Professor Branscomb
315. Judaism at the Beginning of the Christian Era.- 3 s.h.
[Not offered in 1946-47]
316. Hellenistic Religions at the Beginning of the Christian Era.-3 s.h.
[Not offered in 1946-47] Professor Clark
318. Text of New Testament.-3 s.h.

Professor Clark
320. Rabbinic Literature.-3 s.h.

RELATED COURSES IN OTHER DEPARTMENTS
Greek 257. Social and Cultural History of the Hellenistic World from Alexander to Augustus.- 3 s.h.

Professor Rogers
Latin 258. Social and Cultural History of the Graeco-Roman World.3 s.h.

Professor Rogers

## FIELD II. STUDIES IN CHURCH HISTORY

328. The Church in Europe since 1800.-Prerequisite: Church History 233-234. 3 s.h.
[Not offered in 1946-47]
329. The Social Message of the Early and Medieval Church.-Prerequisite: Church History 233-234. 3 s.h.

Professor Petry
332. The Medieval Church.-Prerequisite: Church History 233-234. 3 s.h.
[Not offered in 1946-47] Professor Petry
333. A History of Christian Renunciation in the Middle Ages.-Prerequisite: Church History 233-234. 3 s.h. Professor Petry
334. Church Reformers and Christian Unity.-Prerequisite: Church History 233-234. 3 s.h.
[Not offered in 1946-47]
365. History of Religious Education in Modern Times.- 3 s.h.

Professor Spence

## RELATED COURSES IN OTHER DEPARTMENTS

History 221-222. The Age of the Renaissance.-6 s.h.
Associate Professor Nelson
History 223-224. Medieval Institutions and Culture.-6 s.h.
Assistant Professor Quynn
History 225-226. The Age of the Reformation.-6 s.h.
Associate Professor Nelson

## FIELD III. STUDIES IN CHRISTIAN THOUGHT

321. Platonism and Christianity.-Prerequisite: six semester hours in philosophy or its equivalent. 3 s.h. Associate Professor Cushman 322. Theolog $\dot{y}$ and Philosophy in the Nineteenth Century.-3 s.h.

Associate Professor Cushman
325. Philosophical Theology I.-3 s.h. Associate Professor Cushman
326. Philosophical Theology II.-3 s.h. Associate Professor Cushman
329. Seminar in Historical Theology.-2 s.h.
[Not offered in 1946-47]
368. Theories of Religious Education.-3 s.h. Professor Spence 391-392. Historical Types of Christian Ethics.-6 s.h.

Assistant Professor Beach
394. Christianity and the State.-3 s.h. Assistant Professor Beach
395. Religious Thought in Colonial America.- 3 s.h. Professor Smith
396. American Religious Thought in the Nineteenth Century.- 3 s.h.

Professor Smith
397. Religious Thought in America Today.-3 s.h. Professor Smith
398. American Christology.—3 s.h. Professor Smith [Not offered in 1946-47]
495-496. Seminar in American Religious Thought.-4 s.h.
Professor Smith

## ROMANCE LANGUAGES

PROFESSOR WEBB, CHAIRMAN-107 GRAY BUILDING; PROFESSOR JORDAN, DIRECTOR OF GRADUATE STUDIES-106 GRAY BUILDING; PROFESSORS COWPER AND lundeberg; associate professors davis and walton

## FRENCH

FOR SENIORS AND GRADUATES
213. French Classicism.-3 s.h.
214. French Classicism.-3 s.h.

215-216. The Modern French Novel.- 6 s.h.
217. French Phonetics.-3 s.h.
218. Materials and Methods.-3 s.h.
219. Old French.-3 s.h.
220. Old French.-3 s.h.

Assoclate Professor Walton
Associate Professor Walton
Professor Jordan
Professor Webb
Professor Webb
Professor Cowper
Professor Cowper
227. French Poetry since Théophile Gautier.-3 s.h.

Associate Professor Walton
232. Rousseau and the Beginnings of Romanticism. - 3 s.h.

Professor Cowper
233. Main Currents of Modern French Literature.-3 s.h.

Professor Webb FOR GRADUATES
317. History of the French Language, Phonology and Morphology.-3 s.h. Professor Cowper

323-324. Realism and Naturalism.-6 s.h.
Professor Jordan

325-326. French Literature in the Sixteenth Century.-6 s.h.
Associate Professor Walton
328. Anatole France.-3 s.h.
331. Diderot and the Encyclopédie.-3 s.h.
333-334. Contemporary French Literature.-6 s.h.
350. Nineteenth-Century French Criticism.-3 s.h.

SPANISH
FOR SENIORS AND GRADUATES
253. SDanish Phonetics.-3 s.h.

Professor Lundeberg
255-256. Spanish in Spanish-American Literature.-6 s.h.
[Not offered in 1946-47]
257-258. Old Spanish Language and Literature.-6 s.h.
Associate Professor Davis
260. Advanced Syntax and Composition.-3 s.h. 261-262. The Modern Spanish Novel.-6 s.h.
265. Golden Age Literature: Cervantes.-3 s.h. [Not offered in 1946-47]
266. Golden Age Literature-Golden Age Drama.-3 s.h.
[Not offered in 1946-47]

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, DIRECTOR OF GRADUATE STUDIES-310 LIBRARY BUILDING; PROFESSORS HART AND THOMPSON; ASSOCIATE PROFESSOR SCHETTLER; ASSISTANT PROFESSOR LABARRE
205. Social Pathology.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h. Professor Jensen
206. Criminology.-Prerequisite : course 91-92, 101, or 131-132. 3 s.h. Professor Jensen
212. Child Welfare.-Prerequisite : course 91-92, 101, or 131-132. 3 s.h.
[Offered in Summer Session, 1946] Professor Jensen
213. Constructive Social Policies.-2 s.h. Professor Jensen [Not offered in 1946-47]
215. Rural Sociology.-Prerequisite: course $91-92$, 101, or 131-132. 3 s.h. Professor Thompson
216. Urban Sociology.-Prerequisite : course 91-92, 101, or 131-132. 3 s.h. Professor Thompson
217. Race and Culture.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h. Professor Thompson
218. Community and Society.-Prerequisite: course 91-92, 101, or 131-132. 3 s.h. Professor Thompson
225. Statistical Methods in Sociology.-Prerequisite : course 91-92, 101, or 131-132. 3 s.h. Professor Hart
227. Emigration and Immigration.-Prerequisite : course 91-92, 101, or 131132. 3 s.h.
[Not offered in 1946-47]
231. General Ethnography.-Prerequisite: Sociology 131. 3 s.h.

Assistant Professor LaBarre
236. Social Ethics.-3 s.h.

Professor Hart
237. Indians of North America.-Prerequisite: course 131. 3 s.h.

Assistant Professor Labarre
238. Anthropological Backgrounds of Latin America.-Prerequisite: course 131, or equivalent. 3 s.h.

Assistant Professor LaBarre
239. Acculturation and Cultural Synthesis.-Prerequisite: course 131, or equivalent. 3 s.h. Assistant Professor Labarre
240. The Peoples of Africa.-Prerequisite: course 131. 3 s.h.

Assistant Professor LaBarre
252. Education and Social Control.-Prerequisite: course 91-92, 101, or 131-132. 2 s.h.
[Not offered in 1946-47]
281. Social Attitudes and Collective Behavior.-3 s.h.

Associate Professor Schettler
282. Public Opinion.-3 s.h.

Associate Professor Schettler FOR GRADUATES
317. Seminar in Anthropology.-1 to 3 s.h. Assistant Professor LaBarre
319. Principles of Sociology.-3 s.h. Professor Jensen
[Not offered in 1946-47]
320. History of Sociological Theory.-3 s.h. Professor Jensen
322. Methods of Social Research.—3 s.h. Professor Jensen
326. Operational Sociology.-Prerequisite : one of the following: Sociology 225 , or Economics 237-238, or Education 209, or Mathematics 74 or 275, or some other acceptable course in statistics. 3 s.h. Professor Hart
330. Seminar.-1 s.h. Professors Hart, Jensen, and Thompson; Associate Professor Schettier Professor Thompson
340. Seminar.-3 s.h.
350. Seminar in Applied Sociology.-1 to 3 s.h.

Professor Jensen
351. Seminar in Medical Sociology.-2 s.h.
[Not offered in 1946-47]
352. Seminar in Family Law.-2 s.h.

Professor Bradway
360. Seminar in Social Statistics.-1 to 3 s.h.

Professor Hart
related courses in other departments
Economics 215. Economic Systems.-3 s.h.
Professor Hoover
Economics 216. Economic Functions of the State.-3 s.h.
Professor Hoover
Economics 217. Population Problems and Resources. 3 s.h.
Professor Spengler
Philosophy 205. Philosophy of History.-3 s.h. Professor Widgery
Political Science 223. Political Thought to the Seventeenth Century.3 s.h. Professor Wilson and Associate Professor Hallowell

Political Science 224. Modern Political Theory.-3 s.h.
Professor Wilson and Associate Professor Hallowell
Psychology 206. Social Psychology.-3 s.h.
Professor Adams and Assistant Professor Koch

## ZOOLOGY

> professor gray, chairman- 218 biology building; professor hargitt, director of graduate studies-326 biology building; professor pearse; associate professors bookhout and wilbur; assistant professors Jeffers and johnson

> For seniors and graduates
> 204. Advanced Parasitology.-Prerequisite: Zoology 161. 4 s.h.

> Professor Pearse
> 222. Entomology.-Prerequisite : one year of zoology. 4 s.h.

> Professor Gray
> 224. Vertebrate Zoology.-Prerequisite: Zoology 53. 4 s.h. ${ }^{*}$

> Professor Gray
> 229. Endocrinology.-Prerequisites: Zoology 53, 92, and 151. 4 s.h. Assistant Professor Jeffers
> 274. Invertebrate Zoology.-Prerequisites: Zoology 1 and 2. 4 s.h. Associate Professor Bookhout
> 276. Protozoology.-Prerequisites: Zoology 1 and 2. 4 s.h. Associate Professor Bookhout for graduates
303. Ecology.-4 s.h.

Professor Pearse
306. Advanced Ecology.-Prerequisite: Zoology 303. 4 s.h.

Professor Pearse
307. Foundations of Zoology.-2 s.h.

Professor Pearse
321. General Physiology.-4 s.h. Associate Professor Wilbur
324. Advanced Physiology.-Prerequisite: Zoology 151 or 321. 4 s.h.

Associate Professor Vilbur
328. Experimental Embryology.-Prerequisites: Zoology 53, 92, 151, 156, or equivalents. 4 s.h.

Assistant Professor Johnson
341. Historical and Philosophical Zoology.-2 s.h. Professor Hargitt
343. Cytology.-Prerequisites: Zoology 53, 92, i56, or equivalents. 4 s.h.

Professor Hargitt
351-352. Zoological Journal Club.-2 s.h.
Staff
353-354. Research.-Credits to be arranged.
(a) Embryology.

Assistant Professor Johnson
(b) Comparative and General Physiology. Associate Professor Wilbur
(c) Histology; Cytology.

Professor Hargitt
(d) Invertebrate Zoology.
(e) Ecology; Parasitology.
(f) Vertebrate Zoology.
(g) Endocrinology.

Associate Professor Bookhout
Professor Pearse
Professor Gray
Assistant Professor Jeffers
355-356. Seminar.-Credits to be arranged.
(a) Embryology.

Assistant Professor Johnson
(b) Comparative and General Physiology

Associate Professor Wilbur
(c) Histology; Cytology.

Professor Hargitt
(d) Invertebrate Zoology.
(e) Ecology; Parasitology.
(f) Vertebrate Zoology; Entomology.
(g) Endocrinology.

Associate Professor Bookhout
Professor Pearse
Professor Gray
Assistant Professor Jeffers

## COURSES IN THE MEDICAL SCHOOL OPEN TO GRADUATE STUDENTS

PROFESSORS F. BERNHEIM, EADIE, HALL, HETHERINGTON, MARKEE, PERLZWEIG, AND D. T. SMITH; VISITING PROFESSOR DAWSON; ASSOCIATE PROFESSORS CONANT, DANN, HOLLINSHEAD, MCCREA, MARTIN, NEURATH, AND TAYLOR;

ASSISTANT PROFESSORS M. L. C. BERNHEIM, EVERETT, HANDLER, PEELE, AND SAWYER

## ANATOMY

M201. Gross Human Anatomy.-Hours and credits (maximum 8 s.h.) by arrangement. Prerequisites: adequate training in comparative anatomy and embryology.

Dr. Markee and Staff
M202. Microscopic Anatomy.-Hours and credits (maximum 3 s.h.) by arrangement. Prerequisite: adequate training in histology or cytology.

Dr. Markee and Staff
M203. Anatomy of the Nervous System.-Hours and credits (maximum 4 s.h.) by arrangement. Prerequisite: Anatomy M201.

Dr. Markee and Staff

## BACTERIOLOGY AND IMMUNOLOGY

M221. Bacteriology and Immunology.-Prerequisites: courses in general zoology, general botany, histology and comparative anatomy, general and organic chemistry. 4 s.h.

Dr. D. T. Smith and Staff
M323. Advanced Bacteriology and Immunology.-8 s.h.
Dr. D. T. Smith and Staff

## BIOCHEMISTRY

M241. General Biochemistry.-Prerequisites: general chemistry, organic chemistry, elementary physical and analytical chemistry, and at least one year of college biology. 8 s.h.

Dr. Perlzweig and Staff
M242. Biochemical Preparations.-Prerequisite: Biochemistry M241. 2, 3, 4 s.h.

Drs. Perlzweig, Neurath and Handler
M243-244. Physical Chemical and Colloid Chemical Principles of Bio-chemistry.-4 s.h.

Dr. Neurath
M341. Pathological Chemistry.-Prerequisites: Biochemistry M241 and Physiology M261-2.

Drs. Perlz weig, Taylor, and M. L. C. Bernheim
M343. Immunochemistry.-2 s.h.
Drs. Martin and Neurath
M345-346.-2 s.h.
Dr. Perlzweig and Staff
M347-348. Biochemical Research.-2, 3, 4 s.h. per semester.
Drs. Perlzweig, Taylor, Neurath, Handler, and M. L. C. Bernheim

M261-2. Human Physiology.--Prerequisites: Anatomy M201 and Biochemistry M241 (or equivalents) and at least one year of college physics. Credits depending on work taken. (Maximum $8 \mathrm{~s} . \mathrm{h}$. )

M363-4. Advanced Seminar in Nutrition.--Prerequisites: Biochemistry M241 and Physiology M261 or equivalents. 4 s.h. Dr. Dann

M365. Respiration and Aero-Physiology.-Prerequisite: M261-2 or equivalent. 4 s.h. Dr. Hall

M367. Physiology of the Nervous System.-Prerequisite: M261-2 or equivalent. 2 s.h. Dr. Eadie

M369. Pharmacology. Mode of Action of Drugs.-Prerequisite: M261-2 or equivalent. 4 s.h.

Dr. F. Bernheim
M370. Seminar.-2 s.h.
Dr. Eadie, Dr. Hall and Staff
M372. Research.-Credits to be arranged.
Staff

## THE DIVINITY SCHOOL

Bennett Harvie Branscomb, A.B., M.A., (Oxon.), Ph.D., Litt.D.

1945-1946

ANNOUNCEMENTS FOR 1946-1947

## THE DIVINITY SCHOOL OF DUKE UNIVERSITY

## THE DIVINITY SCHOOL

The Indenture signed by Mr. James B. Duke, which established the University, mentioned first among its objects the training of ministers of the Gospel. The Divinity School was, accordingly, the first of the graduate professional schools to be organized. Its work began with the year 1926-27, the formal opening exercises being held on November 9, 1926.

The Reverend Doctor Edmund Davison Soper was the first dean of the Divinity School. He was succeeded in 1928 by the Reverend Doctor Elbert Russell, and the latter in turn in 1941 by the Reverend Doctor Paul Neff Garber. In 1945 Dean Garber was elected to the episcopacy of the Methodist Church, and the Reverend Doctor Harvie Branscomb assumed the duties of the dean's office.

## THE PURPOSE OF THE DIVINITY SCHOOL

The primary purpose of the Divinity School is to provide training for individuals planning to enter the Christian ministry. This includes not only prospectve ministers in local churches, but also those preparing themselves to be missionaries at home and abroad, directors of religious education, teachers of religion, and social workers. Vital to all of these forms of service is a full understanding of the beginnings, content, and history of the Christian faith and its special pertinence for the spiritual needs of the modern world. Studies of a broad and thorough character directed toward such an understanding constitute the center of the curriculum of the Divinity School and are regarded as the basic training for all prospective Christian workers. Specific training in the skills required of local ninisters and of leaders in the work of religious education are also provided. As funds become available for the purpose and as needs appear, additional training in specialized skills and areas of knowledge will be added to the curriculum.

Though bound by ties of history and obligation to the Methodist Church, the Divinity School is multi-denominational in its interests and ecumenical in its outlook. Its faculty is limited to no one denomination, but draws upon the resources of them all. Students of the several denominations are admitted on the same basis. The Divinity School conceives its task to be one of broad service to the Church of Christ in all of its forms.

## THE RELATION OF THE DIVINITY SCHOOL TO DUKE UNIVERSITY

The Divinity School is an integral unit of the University and shares fully in its activities, privileges and responsibilities. The Sunday services in the University Chapel give the Divinity School students an opportunity to hear each year a number of the leading preachers of the country. The University Library, conveniently located next to the Divinity School

Building, makes easily accessible a rich collection of approximately three quarters of a million volumes. Selected courses in the Graduate School of Arts and Sciences and in the professional schools are open to Divinity School students without payment of additional fees. The general cultural and recreational resources of the University are available to them on the same basis as other students.

## LIBRARY RESOURCES

The Divinity School has its own special library collection housed in the Divinity School Building. This collection, which contains materials dealing with the subject of religion, numbers approximately thirty-five thousand volumes. It is rich in complete files of the more important religious journals and periodicals, in source materials, particularly for the study of American church history, missions and the history of religion, and in facsimiles of the more important manuscripts of the New Testament. One of the outstanding possessions of the Library is a magnificent Greek manuscript of the thirteenth or fourteenth century containing the entire text of the New Testament.

The general Library of the University is connected by a corridor with the Divinity School Building. It contains over seven hundred thousand volumes and receives the current issues of several thousand periodicals. The general Library contains also a catalogue of the library of the University of North Carolina located at Chapel Hill, twelve miles away, and a system of exchange operates between the two libraries so that books may be secured from that library also within a few hours.

## ENDOWED SCHOLARSHIP FUNDS

Certain special scholarship funds have been established, the income of which is available for students wishing to secure training in preparation for the Christian ministry. Mr. P. Huber Hanes of Winston-Salem, North Carolina, an alumnus of Duke University of the Class of 1900 and a member of the Board of Trustees, has established an annual scholarship yielding the sum of $\$ 400$. The scholarship bears the name of the donor.

In 1939 Mr. N. Edward Edgerton of Raleigh, North Carolina, an alumnus of Duke University of the Class of 1921, a member of the Board of Trustees of the University and a member of the Committee on the Divinity School, established the N. Edward Edgerton Fund. The award is limited to students who are candidates for the B.D. degree.

In 1942 the Alumni Association of the Divinity School established a scholarship fund in honor of Elbert Russell, Dean Emeritus of the Divinity School and for a number of years Professor of Biblical Theology.

In 1946 the Forest Hill Methodist Church established a scholarship fund in memory of W. R. Odell, for many years a member of the Board of Trustees of the University.

In addition to these endowed scholarships there are available for students preparing for the Methodist ministry approximately sixty work scholarships provided by the Duke Endowment for aiding rural Methodist
churches in North Carolina. Terms of these scholarships are given on page 13 of this catalogue. At the meeting of the Southeastern Jurisdictional Conference of the Methodist Church fifteen similar work scholarships were appropriated.

These scholarships are all awarded on the basis of service performed in a local church, thus providing for the student experience as well as financial aid.

## COURSES OF STUDY OFFERED BY THE DIVINITY SCHOOL

The Divinity School offers at present two courses of study. The basic course is that which leads to the degree of Bachelor of Divinity. This is a three-year course and is recommended to all those preparing themselves for the work of the regular pastoral ministry.

Beginning with the year 1944-45 the Divinity School offered also a course of study leading to the degree of Master of Religious Education. This course is designed for individuals who wish to become directors or to take other specialized positions in the work of religious education.

## COURSES OF STUDY IN RELIGION OFFERED BY THE GRADUATE SCHOOL OF ARTS AND SCIENCES

Students who desire to pursue work in religion beyond that for the Bachelor of Divinity degree should register in the Graduate School of Arts and Sciences, through which the degrees of Master of Arts and Doctor of Philosophy may be obtained. This advanced work is administered through the Department of Religion of the Graduate School and is available to qualified persons of all denominations on an equal basis. Study and research may be pursued in three fields: (1) Biblical Studies; (2) Studies in Church History; and (3) Studies in Christian Thought. A list of courses approved by the Graduate Council for work in these fields, together with general requirements for admission to the Graduate School, may be found in the Bulletin of the Graduate School. This Bulletin is available on application to Dean Calvin B. Hoover, the Graduate School of Arts and Sciences, Duke University.

A limited number of University Scholarships and Fellowships, among which are two Gurney Harriss Kearns Fellowships of $\$ 700$ each, may be obtained by exceptionally qualified students.

## FACILITIES FOR ADVANCED STUDY IN THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

The Divinity School of Duke University is one of the supporting members of the American Schools of Oriental Research. Accordingly, students in the Divinity School have the privilege of attending the American School in Jerusalem or the one in Bagdad without charge for tuition. They may also compete for the financial aids which are offered annually by the Schools. These consist of four fellowships, the stipends depending upon available funds.

# COSTS, RESIDENTIAL ARRANGEMENTS, AND STUDENT AID 

## FEES AND COSTS

The University tuition charge is $\$ 150$ per semester. This is remitted in whole or in part to students matriculated in the Divinity School in accordance with need. Other charges are as follows:
Fees per semester:
Matriculation Fee ............................................... $\$ 25.00$
Library Fee ..................................................... 5.00
Hospital Fee .................................................... . . . 10.00
Damage Fee ..................................................... . . . 1.00

Approximate cost of meals per semester .................... $\quad 150.00$
Room per semester ............................................... 62.50
Total per semester . .......................................... . $\$ 253.50$
Students wishing to purchase admission books to all athletic contests held by the University may do so at a charge of $\$ 5.00$ per semester.

Each student is assessed, in the last semester before a degree is conferred, a Commencement Fee of $\$ 3.00$ and a Diploma Fee of $\$ 5.00$. The latter fee is refunded if the diploma is not awarded.

## LATE REGISTRATION

Students matriculating in either semester at a date later than that prescribed in the catalogue shall pay to the Treasurer of the University a penalty of $\$ 5.00$.

## DINING HALL

The dining halls in the University Union have accommodations for all resident Divinity School students. The meals furnished in the Union are supervised by trained dietitians. The price of board in the University dining hall is approximately $\$ 35.00$ per month.

## LIVING QUARTERS

Divinity School students are housed in the University dormitories along with other graduate and professional students. Application for room assignments should be addressed to the Director in the Business Division, Duke Station, Durham, N. C. The cost of a single room is $\$ 75$ per semester, of a double room $\$ 62.50$ per student per semester. A reservation fee of $\$ 25$ is required at the time a room is assigned. This reservation fee is deducted from the room charges at the time of registrathon. Students are urged to apply for rooms as early as possible. Under present circumstances delays are likely to result in failure to secure accommodations. Students occupying rooms in the dormitories who wish to retain their rooms for a following year must notify the Office of the Director in the Business Division by May 15.

## STUDENT AID

Duke University remits its regular tuition charge to all students enrolled in the Divinity School insofar as this aid is needed. Scholarship aid, over and above this, is available only in the form of work scholarships. Those appointed to these scholarships agree to give ten weeks' service during the summer months to a church to which they are assigned. In return they receive their board and room for the period of their sumner service and $\$ 400$. This latter sum is made available during the academic year preceding the summer work if desired. By special arrangement a student may be assigned to a church for five weeks' work with onehalf the stated remuneration.

## REQUIREMENTS FOR GRADUATION

## REQUIREMENTS FOR ADMISSION

Candidates for admission must be graduates of colleges of recognized standing whose college record is such as to indicate their ability to carry on graduate professional studies. They will be admitted without examination on presentation of an official transcript of college and other academic credits which they may have secured. The application of students from foreign countries will be considered each on its own merits, the general principle being that a training equivalent to that of a baccalaureate degree from an accredited American college must have been secured. Women will be admitted on the same basis as men. Graduates of non-accredited colleges will be considered on their merits, but only those who give evidence of special promise will be admitted. In addition to an adequate academic preparation, applicants must satisfy the Faculty as to their Christian character and purpose. A formal application blank inay be secured from the Dean of the Divinity School. This must be filled out and returned by all candidates for admission.

## PRESEMINARY CURRICULUM

The Divinity School, in substantial agreement with the standards of the American Association of Theological Schools, recommends that prospective candidates for admission keep in mind the desirability of including the following in their undergraduate curriculum:

Two years' work in English literature and composition.
Two years in a foreign language.
One semester each in psychology, philosophy, and sociology (or economics).
One year in history.
An introduction to the natural sciences with adequate laboratory work (biology or one of the physical sciences).
Proficiency in public speaking.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF DIVINITY

The requirements for the degree of Bachelor of Divinity are the following:

Completion of ninety semester hours of course work, including the required courses listed on the following page.

Selection of a major field of study, in which fifteen semester hours of work shall be completed including the courses required of all students in that field.

Demonstration of a detailed knowledge of the contents of the narrative portions of the English Bible. An examination for this purpose is given each spring. The dates for this examination for the academic year 1946-47 will be April 16-17, 1947.

The writing of an adequate thesis.
Students who show deficiencies in English composition will be required to take special training in addition to meeting the other requirements for the degree.

The course leading to the degree of Bachelor of Divinity is planned to cover three years of normal academic work. In no case will this degree be conferred on a student until he has spent at least two semesters in residence in the Divinity School. This is defined as the completion of thirty semester hours of work.

REQUIRED COURSES FOR THE DEGREE OF BACHELOR OF DIVINITY
Old Testament
203-204. Introduction to the Old Testament
New Testament

213-214. The Beginnings of Christianity 6 s.h.

Christian Doctrine
221. Introduction to Theology 3 s.h.
222. Introduction to Christian Theology 3 s.h.

Church History
233. Church History to the Reformation 3 s.h.
234. History of the Evangelical Movement

3 s.h.。

## American Religious Thought

296. The Rise of American Christianity

## Homiletics

| 241. Effective Speaking | 3 s.h. |
| :---: | :---: |
| 243. Sermon Construction | 3 s.h. |
| Practical Theology |  |
| 252. Church Administration | 3 s.h. |
| Religious Education |  |
| 261. The Educational Work of the Church | 3 s.h. |

Psychology of Religion
271. Psychology of Religion

Philosophy of Religion and Christian Ethics
291. Christian Ethics I

History of Religion and Missions
281. Living Religions of the World 3 s.h.
282. Missions

3 s.h.
Social Ethics
*236. Social Ethics

# DISTRIBUTION OF REQUIRED COURSES BY YEARS 

Fall Semester<br>Spring Semester<br>Required in the First Year

Old Testament 203 or New Testa- Continuation of Biblical course begun ment 213
Church History 233 in fall semester

History of Religion 281
Church Administration 252
$\dagger$ Homiletics 241 (Speech)
$\ddagger$ American Religious Thought 296

## Required in the Second Year

Christian Doctrine 221
Christian Doctrine 222
Religious Education 261
Missions 282
Homiletics 243
Required in Either First or Second Year
Old Testament 203 and New Testa- Old Testament 204 and New Testament 213
Psychology of Religion 271 Christian Ethics 291
ment 214
**Social Ethics 236

All required courses must be completed by the end of the second year.

## THE SELECTION OF A MAJOR FIELD

Each student must select a department in which he elects to major and in which he will write his thesis. He must take fifteen semester hours in the department, including the general requirement in that department. He may also take his major in English Bible. To major in this field he must complete nine semester hours in the departments of Old and New Testament in addition to the required work in those departments. Of these nine semester hours, six must be taken in one of the two departments and three in the other. Credit for the thesis is not counted toward the completion of the major.

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## THESIS

The thesis, required of all students for graduation, shall be of such a character as to evidence special competence in a selected field of study and an ability to carry out and to state clearly independent investigations. The thesis shall be written in the major field of study preferably in connection with an advanced course. The subject shall be approved by the inajor professor.

The thesis shall be from fifty to seventy-five pages in length. Two typewritten bound copies shall be presented to the instructor, one of which will be returned to the student after the thesis has been read and approved. The thesis, when approved, shall carry three semester hours credit. All theses shall be submitted in final form on or before May 15th of the year of graduation.

## NORMAL SCHEDULE OF WORK

The normal schedule is fifteen semester hours per semester. For students carrying the responsibilities of pastoral charges the maximum load is twelve semester hours per semester. No students may increase their schedules beyond these limits except for one semester of the middle year when students with superior records may add three semester hours, and for the final semester before graduating when three semester hours may be added if this is necessary in order to complete the requirements for graduation.

## SPECIAL REGULATIONS

Grades of incomplete received at the end of the fall semester must be removed by the completion of the work of the course not later than March 15. Grades of incomplete received at the end of the spring semester must be removed by October 1. If the work of the course is not completed by these dates, the grade shall be recorded as $F$.

No student shall be permitted to drop a course after the expiration of one-third the period of instruction of the course without incurring failure except for causes adjudged by the dean to be beyond the student's control.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF RELIGIOUS EDUCATION

The course of study leading to this degree is designed to provide training primarily for individuals desiring to become educational assistants in churches or to engage in other forms of Christian education.

Candidates for this degree must be graduates of accredited colleges with academic and personal records which afford promise of competence in this area of service. The course of study will be especially useful for individuals who have had one or more years of experience in religious education and desire further training. Candidates for this degree will be limited in number, and individuals interested are urged to apply for admission well in advance of the opening of the academic year.

Certain prerequisite studies must have been taken by the candidate during the course of his academic training or must be secured, without
credit toward the M.R.E. degree, after being admitted to the Divinity School. These are the following :

| General Psychology | 6 s.h. |
| :--- | :--- |
| Sociology | 6 s.h. |
| Biblical Studies (including work in both the Old and the | 6 s.h. |

Thirty semester hours of academic work are required for graduation. Eighteen of the semester hours must be in the following fields:

Religious Education 6 s.h.
Psychology of Religion 3 s.h.
Christian Ethics or Social Ethics
3 s.h.
Biblical Studies
6 s.h.
The candidate must also engage in practice teaching in a church school or undertake some other approved project and must submit a written report covering this practical experience. This work will be under the supervision of the Department of Religious Education.

## COURSES OF INSTRUCTION*

## I. DIVISION OF BIBLICAL STUDIES old testament

201-202. First Hebrew.-6 s.h. Mr. Stinespring
203-204. Introduction to the Old Testament.-6 s.h. Mr. Stinespring
205-206. Elementary Arabic.-6 s.h.
Mr. Stinespring
[Not offered in 1946-47]
207-208. Second Hebrew.-6 s.h.
Mr. Stinespring
301. The Religious Thought of Post-Exilic Judaism.-Prerequisite: Old Testament 203-204. 3 s.h.

Mr. Young
304. Aramaic.-3 s.h.

Mr. Stinespring
305. Third Hebrew.-3 s.h.

Mr. Stinespring
309. History of the Ancient Near East.-3 s.h.

Mr. Stinespring
[Not offered in 1946-47]
310. Old Testament Prophecy.-3 s.h.

Mr. Stinespring
401-402. Thesis Seminar.
Departmental Staff
NEW TESTAMENT
211-212. Hellenistic Greek.-6 s.h. Mr. Young
213-214. The Beginnings of Christianity.-6 s.h.
Mr. Clark
217. The New Testament in Greek.-Prerequisite: six semester hours' study of the Greek language. 3 s.h.

Mr. Clark
218. Galatians and I Corinthians.-Prerequisite: New Testament 217 or its equivalent. 3 s.h.

Mr. Clark
[Not offered in 1946-47]
219. Life of Paul.ㅇ s.h. Mr. Myers
220. I Peter and the Gospel of John.-Prerequisite: New Testament 217 or its equivalent. 3 s.h.

Mr. Clark
311. The Life and Teachings of Jesus.-Prerequisite: New Testament 213-214. 3 s.h. Mr. Branscomb
312. New Testament Theology.-Prerequisite: New Testament 213-214. 3 s.h.

Mr. Young
313. Apostolic Fathers.-3 s.h.

Mr. Clark
314. Patristic Greek.-Prerequisite: New Testament 217-218 or its equivalent. 3 s.h.

Mr. Young
316. Hellenistic Religions at the Beginning of the Christian Era.-Prerequisite: New Testament 213-214. 3 s.h.

Mr. Clark
318. Text of New Testament.-Prerequisite: New Testament 213-214 and a reading knowledge of Greek. 3 s.h.

Mr. Clark
411-412. Thesis Seminar.
Departmental Staff

* On recommendation of the professor in charge of the major field, courses offered in the Graduate School of Arts and Sciences other than those approved for credit in the Divinity School may be approved for credit in individual cases, provided no equivalent course is offered in the Divinity School; each case to be decided on its merits.

315. Judaism at the Beginning of the Christian Era.-Prerequisite: New Testament 213-214. 3 s.h.
[Not offered in 1946-47]
316. Rabbinic Literature.-Prerequisite: New Testament 213-214. 3 s.h. [Not offered in 1946-47]

## II. DIVISION OF HISTORICAL STUDIES history of religion and missions

281. Living Religions of the World.-3 s.h.

Mr. Cannon
282. Missions.-3 s.h.

Mr. Cannon
283. The Religions of the Far East.-3 s.h.

Mr. Cannon
284. Comparative Religion I.-Prerequisite : 281. 3 s.h.

Mr. Cannon
286. Comparative Religion II.-Prerequisite: 281. 3 s.h. Mr. Cannon
[Not offered in 1946-47]
287. Mohammedanism.-Prerequisite: 281. 3 s.h. Mr. Cannon
288. The Religions of India.-3 s.h.

Mr. Cannon
Mr. Cannon
289. Buddhism.-Prerequisite: 281. 3 s.h.
[Not offered in 1946-47]
481-482. Thesis Seminar.-Prerequisite: six semester hours in the department.

Mr. Cannon

## CHURCH HISTORY

233. Church History to the Reformation.-3 s.h.
234. History of the Evangelical Movement.-3 s.h.

Mr. Petry
Mr. Petry
[Not offered in 1946-47]
331. The Social Message of the Early and Medieval Church.-Prerequisite : Church History 233-234. 3 s.h.

Mr. Petry
332. The Medieval Church.-Prerequisite: Church History 233-234. 3 s.h.
[Not offered in 1946-47]
Mr. Petry
333. A History of Christian Renunciation in the Middle Ages.-Prerequisite: Church History 233-234. 3 s.h. Mr. Petry
334. Church Reformers and Christian Unity.-3 s.h. Mr. Petry
[Not offered in 1946-47]
336. Religious Leaders of the Early and Medieval Church.-Prerequisite: Church History 233-234. 3 s.h.

Mr. Petry
[Not offered in 1946-47]
339. Methodism.-Prerequisite: Church History 233-234. Spring semester. 3 s.h.

Mr. Rowe
437-438. Thesis Seminar.
Departmental Staff
AMERICAN RELIGIOUS THOUGHT
296. The Rise of American Christianity.-3 s.h.

Mr. Smith
395. Religious Thought in Colonial America.- 3 s.h.
396. Religious Thought in the Nineteenth Century.-3 s.h.

Mr. Smith
397. Religious Thought in America Today.-3 s.h.
398. Modern American Christology.-2 s.h.

Mr. Smith
399. Social Thought in American Christianity.-3 s.h.
[Not offered in 1946-47]
495-496. Seminar in American Religious Thought.-4 s.h.

## III. DIVISION OF THEOLOGICAL STUDIES CHRISTIAN DOCTRINE

221. Introduction to Theology.-3 s.h.

Mr. Rowe
222. Introduction to Christian Theology.-3 s.h.

Mr. Cushman
225. Soteriology.-Prerequisite: Christian Doctrine 221. 3 s.h. Mr. Rowe
226. Eschatology.-Prerequisite: Christian Doctrine 221. 3 s.h. Mr. Rowe

321-A. Platonism and Christianity.-Prerequisite: six semester hours in philosophy or its equivalent (Christian Doctrine 221). 3 s.h. Mr. Cushman

322-A. Theology and Philosophy in the Nineteenth Century.-Prerequsite: six semester hours in philosophy or its equivalent (Christian Doctrine 221). 3 s.h.

Mr. Cushman
324. The Content of Christian Doctrine.-Prerequisite: Christian Doctrine 221. 3 s.h.
[Not offered in 1946-47]
325-A. Philosophical Theology 1.-Prerequisite: six semester hours in philosophy or Christian Doctrine (221-222). 3 s.h. Mr. Cushman

326-A. Philosophical Theology II.-Prerequisite: Christian Doctrine 421. 3 s.h.

Mr. Cushman
327. Arminian Theology.-Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Rowe
328. Current Theology.-Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Rowe
329. The Person and Work of Christ.-Prerequisite: Christian Doctrine 221. 3 s.h.

Mr. Cushman
427-428. Thesis Seminar.
Departmental Staff

## CHRISTIAN ETHICS

291. Christian Ethics I.-3 s.h. Mr. Beach
292. Christian Ethics II.-Prerequisite: 291. 3 s.h. Mr. Beach

391-392. Historical Types of Christian Ethics.-Prerequisite: 291 or its equivalent. 6 s.h.
394. Christianity and the State.-3 s.h. Mr. Beach

Mr. Beach
PSYCHOLOGY OF RELIGION
271. Psychology of Religion.-3 s.h.

Mr. Hickman
272. Advanced Psychology of Religion.-3 s.h. 。 Mr. Hickman
373. Psychology of Preaching.-3 s.h.

Mr. Hickman
374. Pastoral Psychology.-3 s.h.

Mr. Hickman
375. Genetic Psychology of Religion.-3 s.h.

Mr. Hickman
[Not offered in 1946-47]
376. Studies in Mysticism.-3 s.h. Mr. Hickman
[Not offered in 1946-47]
*203. The Philosophy of Conduct.-3 s.h.
Mr. Patterson
*209. Philosophy of Religion I: Philosophical Introduction.-3 s.h.
[Not offered in 1946-47]
Mr. Widgery
*Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity.
*210. Philosophy of Religion II: Philosophical Introduction.-3 s.h. [Not offered in 1946-47]

Mr. Widgery
*226. The History of Ethics.-3 s.h.
Mr. Patterson

## IV. DIVISION OF PRACTICAL STUDIES homiletics

241. Effective Speaking.-3 s.h.

Mr. Rudin
243. Sermon Construction.-Prerequisite: 241. 3 s.h.

Mr. Cleland
244. Practical Problems in Preaching.-Prerequisite : 243. 3 s.h.

Mr. Cleland
246. Oral Interpretation of Literature.-Prerequisite: 241. 2 s.h.

Mr. Rudin
346. Materials of Preaching-Biblical.-Prerequisite: 243 and at least 9 s.h. of O.T. and N.T. 3 s.h.

Mr. Cleland
348. Materials of Preaching-Non-Biblical.-Prerequisite: 243. 3 s.h.
[Not offered in 1946-47] Mr. Cleland
PRACTICAL THEOLOGY
252. Church Administration.-3 s.h. Mr. Ormond
253. Field Work I.-1 s.h. Mr. Ormond
[Not offered in 1946-47]
254. Field Work II.-1 s.h. Mr. Ormond
353. The Rural Church.-3 s.h. Mr. Ormond
354. Parish Evangelism.-3 s.h. Mr. Ormond
355. Public Worship and Ordinances of the Church.-3 s.h. Mr. Ormond
356. The Urban Church.-3 s.h. Mr. Ormond
[Not offered in 1946-47]
357. The Polity of the Methodist Church.—1 s.h. Mr. Ormond

357-B. The Polity of the Baptist Churches.-1 s.h. Mr. Barnett
357-C. The Polity of the Congregational-Christian Churches.-1 s.h.
Mr. Harrell
[Courses on the polity of other churches will be arranged as needed.]
358. Church Music.-3 s.h.

Mr. Barnes
457-458. Thesis Seminar.
Mr. Ormond

## RELIGIOUS EDUCATION

261. The Educational Work of the Church.-3 s.h. Mr. Spence
262. Methods and Materials of Religious Education.-3 s.h. Mr. Spence
263. Worship and Drama.-3 s.h. Mr. Spence
264. History of Religious Education in Modern Times.-3 s.h.
[Not offered in 1946-47]
Mr. Spence
265. The Educational and Spiritual Values of Great Literature.-3 s.h.

Mr. Spence
368. Theories of Religious Education.-3 s.h.

Mr. Spence [Not offered in 1946-47]

* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity.

SOCIAL ETHICS
236. Social Ethics.-3 s.h.
299. Marriage and Family Counseling.-3 s.h.

421-422. Thesis Seminar.-Hours to be arranged.
*205. Social Pathology.-3 s.h.
*206. Criminology.-3 s.h.
*212. Child Welfare.-3 s.h.
*215. Rural Sociology.-3 s.h.
*216 Urban Sociology-3 s.h.
*217. Race and Culture. -3 s.h.

Mr. Hart
Mr. Hart
Mr. Hart
Mr. Jensen
Mr. Jensen
Mr. Jensen
Mr. Thompson
Mr. Thompson
Mr. Thompson

* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity. For description of the course see the catalogue of the Graduate School.


# THE SCHOOL OF LAW 

H. Claude Horack, Ph.B., LL.B., LL.D.<br>Dean

## 1945-1946 <br> ANNOUNCEMENTS FOR 19+6-1947

Member of the Association of American Law Schools Approved by the American Bar Association.

Summer Semester, 1946, begins May 27 ; Fall Semester, 1946, begins September 23; Spring Semester, 1947, begins January 20.

## PROGRAM AND SCHOOL CALENDAR

The Duke Law School will return to its regular pre-war three-year (two semesters in each year) program with the beginning of the Fall Semester, 1946. It will, however, continue its wartime accelerated program for students who enter the school not later than the Summer Session of 1946, and for students so entering a program of study has been arranged which will enable them to complete their law work in two calendar years. Students who have completed the first year of law study at this or any other approved law school may attend the 1946 or 1947 Summer Semester, thus accelerating their study of law to this extent.

In view of an unprecedented number of applications for admission to the first-year class and limited physical facilities for the accommodation of students, the Faculty found it necessary to set a numerical limitation of 150 first-year students for the entering class in the Fall Semester of 1946. Present indications are that a similar limitation will be necessary for the Fall Semester of 1947, and in view of this, students are urged to file their applications for admission as early as possible. Applicants are also advised that where a numerical limitation is set, the selection of candidates will be on the basis of scholastic achievement.

The Summer Session for 1946 will begin on May 27, and end September 7; the Fall Semester, 1946, will begin on September 23 and end January 18, 1947 ; and the Spring Semester for 1947 will begin on January 20, 1947, and end May 10, 1947.

The University and the School of Law reserve the right to make such changes in the courses offered and in all other features of the program herein described as may be deemed necessary or desirable.

## THE SCHOOL: ITS PURPOSES AND METHODS

Built on the foundation of the School of Law of Trinity College, with its history of legal instruction running back to the middle of the past century, the Duke University School of Law was established in 1924. In 1930 the School was moved into its new building, the Faculty and Library were greatly increased, and the activities of the School broadened. The School of Law is a member of the Association of American Law Schools and is on the "Approved List" of the American Bar Association.

The curriculum of the School of Law provides thorough preparation for the practice of law in any state, and, since the enlargement of the School in 1930, its graduates have been admitted to the bar in forty states. Opportunities for specialization in particular branches of the law are afforded.

## ADMISSION OF STUDENTS-REGISTRATION-FEES

## DIRECTIONS TO APPLICANTS FOR ADMISSION

Applications should be made on the prescribed Law School Application blanks which will be sent upon request, and no application is complete until all required documents are on file. Each application for regular or advanced standing must be accompanied by a complete transcript of record and evidence of graduation or right to honorable withdrawal from the institution from which credit is offered. To the application blank should be attached a recently made personal photograph. Except in the case of veterans, letters from responsible persons with whom the applicant has been associated are required. Such letters should certify as to the character and ability of the applicant.

## TIMES OF ADMISSION

Beginning students may enter the Law School either at the beginning of the Summer Session, 1946, or at the beginning of the Fall Semester, 1946. Thereafter, beginning students will be admitted only in the Fall Semester. A full semester's program of instruction will be offered to beginning students who enter in the summer of 1946, and the work of the Fall Semester, 1946, the Spring Semester, 1947, and the Summer Semester of 1947 have been so arranged that these students may continue an uninterrupted program of study so as to enable them to graduate at the end of the Spring Semester, 1948.

## REQUIREMENTS FOR ADMISSION

After the end of the Spring Semester, 1946, the Duke Law School will return to the admission requirement of three years of college credit (three-quarters of the work acceptable for a Bachelor's degree granted on the basis of a four-year period of study).

## VETERANS' ADMISSION REQUIREMENTS

Any person who served in the active military or naval service on or after September 16, 1940, and prior to the termination of the present war, and who shall have been discharged or released therefrom under conditions other than dishonorable, and who either shall have served ninety days or more (exclusive of any period he was assigned for a course of education or training under the Army Specialized Training Program or the Navy College Training Program), or shall have been discharged or released from active service by reason of an actual service-incurred injury or disability, may substitute such term of service for one year of the three-year college entrance requirement. Academic credits will be recognized if gained through examinations on work of college grade pursued while in the military or naval service, if such work is given credit by an approved college; such credits, however, may not exceed one year of the required two years of college study.

The Duke University School of Law has been approved by the Veterans' Administration for law study under the provisions of the Vocational Rehabilitation Act, Public Law 16, and the Servicemen's Readjustment Act of 1944, Public Law 346, often referred to as the "G.I. Bill of Rights." Duke University maintains an office for the handling of the interests of the many students studying under the supervision of the Veterans' Administration. The Secretary of the University is liaison representative and any matters concerning veterans' rights may be taken up with his office.

## GRADUATE RECORD EXAMINATION

The Carnegie Foundation for the Advancement of Teaching provides for examinations to be conducted in many parts of the country whereby a student has an opportunity to test his own performance and to obtain an impartial record of his knowledge. The scores given represent the student's standing with respect to his knowledge of the subjects tested. Applicants for admission are advised that reports of their scores on the Graduate Record Examinations will be regarded as valuable evidence concerning their fitness for admission as it is a test of the student's general intellectual accomplishment. Though not required, the scores made on this examination will be welcomed as an especially desirable credential. Students who take a Graduate Record Examination must make their arrangements directly with the Graduate Record Office, 437 W. 59th St., New York City. The charge for this examination is a nominal fee of $\$ 3.00$.

## COMBINED COURSE

A number of colleges, upon application by their students, have permitted those who have completed three years of undergraduate work to enter the Law School of Duke University and upon the satisfactory completion of the first year of law school work to receive their Bachelor of Arts degree from such colleges. It is suggested that students desiring to enter Duke University School of Law make inquiry of their proper college authorities regarding this point.

A student from an undergraduate college of Duke University who has completed three years of study may apply to that college to enroll in a combined course wherein his first year of law study may be accepted toward the Bachelor of Arts degree, and, upon the completion of four additional semesters of law study, he will receive the Bachelor of Laws degree.

## ADMISSION TO ADVANCED STANDING

Any person who has complied with the requirements for admission set forth in this announcement prior to the commencement of his law study, who shall present evidence of the satisfactory completion of any part of the curriculum at any law school which is a member of the Association of American Law Schools, and who is eligible for readmission to the law school from which he proposes to transfer may be
admitted to advanced standing, subject to such rules as would be applicable to students in this School having a comparable scholastic record.

## CANDIDATES FOR GRADUATE DEGREES

Applications for admission to graduate study should be addressed to the Dean of the Law School and should include transcripts of records of legal and pre-legal work.

## MATRICULATION, REGISTRATION, AND ENROLLMENT

Registration must be completed on the first day of each semester. Instruction will begin in all classes on the following day. The applicant must obtain from the Dean of the Law School an admission card, indicating that he is entitled to register. Registration is conducted in the Law Building.

## REGISTRATION FOR BAR EXAMINATIONS

Many states now require that the student, prior to or shortly after beginning the study of law, must register with the board of bar examiners of the state in which he expects to practice. Each student should write to the secretary of the board of bar examiners of such state in order to be sure that all requirements are fulfilled.

## CONDUCT OF STUDENTS

All students are admitted subject to the rules of the University and of the School of Law, and continuance in the School is conditioned upon the observance of such rules.

## FEES AND EXPENSES

Tuition and registration fees are due at the beginning of each semester. The matriculation fee is $\$ 25.00$ a semester. The tuition fee is $\$ 150.00$ a semester. A damage fee of $\$ 1.00$ is collected at the beginning of the first semester only, an athletic fee of $\$ 5.00$ (optional) at the beginning of each Fall and Spring semester, a library fee of $\$ 5.00$ each semester, and a medical fee of $\$ 10.00$ each semester. The graduation fee, payable by all students to whom a degree is awarded, is $\$ 10.00$.

Board may be secured at the University Union at from $\$ 1.00$ to $\$ 1.50$ per day.

The cost of law books will average, through the three years, between $\$ 20.00$ and $\$ 30.00$ per semester.

## THE GRADUATE DORMITORY AND THE "LAW CABINS"

Furnished double rooms may be secured in the graduate dormitory on the West Campus at $\$ 62.50$ per person per semester. A few single rooms are available at $\$ 75.00$ per semester.

A group of $\log$ cabins, a part of the dormitory system, especially designed as a study center for law students, is located in the Duke Forest about five minutes' walk from the Law Building. These cabins, five in number, including a large cabin for use as a social hall, house thirty-two
students. All rooms in the law cabins are furnished double rooms and may be secured at $\$ 40.00$ per person per semester.

These charges in each case include heat, light, water, and janitorial service but do not include pillows or bed clothing of any kind.

Rooms are reserved only for applicants who have been officially accepted by the University, upon application to the Director in the Business Division, Duke Station, Durham, North Carolina. A reservation fee of $\$ 25.00$ must accompany the application for a room. The reservation fee is deducted from the room charges at the time of registration.

## REQUIREMENTS FOR BACHELOR OF LAWS DEGREE

## BACHELOR OF LAWS DEGREE

Upon favorable recommendation of the Faculty, the degree of Bachelor of Laws will be conferred on students who shall have successfully completed six semesters' study of law, the last two semesters of work immediately preceding the granting of such degree having been completed in this School.

A student shall be deemed to have completed successfully six semesters' study of law if during this period he has
(1) secured a passing grade in courses aggregating the number of semester hours in the first-year program, plus forty-eight semester hours;
(2) secured in every required course a grade not requiring repetition thereof; and
(3) secured an average grade at least five points above passing in all work taken other than first-year courses, or, if the grade in such work is lower than that above specified, an average grade of five points above passing in all work taken.

Students who shall have spent only their last two semesters of study in residence in this School must have received an average grade at least five points above passing for that year.

Minimum and maximum student loads:
No regular student is permitted to take less than ten course hours per semester.

No first-year student is permitted to take courses in excess of the firstyear program.

Second- and third-year students are not permitted to take for credit more than fifteen course hours per semester; nor to audit and take for credit more than sixteen course hours per semester. In exceptional cases, students may petition the Faculty or appropriate Committee of the Faculty for permission to take more or less than the prescribed maximum or minimum loads.

## GRADUATE WORK IN LAW

## REQUIREMENTS FOR ADMISSION TO GRADUATE STUDY

Any person who shall have received the first degree in law from a law school qualified for membership in the Association of American Law Schools may be admitted as a candidate for the degree of Master of Laws. In exceptional cases an applicant who does not meet all the above requirements may, on vote of the Faculty, be admitted to candidacy for this degree where he is able to demonstrate that he is specially qualified, as by reason of practice or teaching.

Any person holding the degree of Master of Laws from this or any cther law school which is qualified for membership in the Association of American Law Schools, on vote of the Faculty, may be admitted to candidacy for the degree of Doctor of Juridical Science provided he completed the work for the Master's degree with distinction.

## THE DEGREE OF MASTER OF LAWS

Upon favorable recommendation of the Faculty, the degree of Master of Laws will be conferred on students who have successfully completed during a period of residence at this School totaling at least two semesters a course of study approved by the Committee on Graduate Study.

The courses of study leading to this degree are designed to provide for the needs of two classes of students: (1) graduates of approved law schools who desire an extra year of study for the purpose of undertaking an intensive study of some specialty, or who desire to broaden their legal education; (2) graduates of approved law schools who desire to teach law or engage in legal research and who intend to become candidates for the degree of Doctor of Juridical Science.

No thesis is required for the degree of Master of Laws. The course of study is prescribed by the Committee on Graduate Study after consultation with the individual student. Opportunity will be afforded the student to include in his program such second- and third-year law courses, not already completed, as are desirable for the rounding out or supplementing of his previous training. In some cases, courses in other departments of the University may be included. In the case of students whose interests lie in further preparation for practice, the course will normally include registration in subjects totaling twelve hours each semester. In the case of students interested primarily in legal research, a lighter schedule, so far as enrollment in formal courses is concerned, may be arranged. In cases where less than twelve hours work is prescribed for either semester, the Committee on Graduate Study may require that the student complete the work undertaken with a grade considerably higher than that required of candidates for the first degree in law.

## THE DEGREE OF DOCTOR OF JURIDICAL SCIENCE

Upon favorable recommendation of the Faculty, the degree of Doctor of Juridical Science will be conferred on students admitted to candidacy for that degree who complete and submit a monograph or series of essays suitable for publication and deemed by the Faculty to be of distinguished character. At least one academic year, and, in the absence of an extension granted by the Faculty upon petition thereto, not more than three years, must elapse between the awarding of the Master's degree and the awarding of the degree of Doctor of Juridical Science. Students who have received the degree of Master of Laws from another law school must spend at least two semesters engaged in research at this School and in addition may be required to complete a course of study prescribed by the Committee on Graduate Study.

## SPECIAL FACILITIES AND ACTIVITIES

## THE LAW SCHOOL BUILDING

The Law Building, like all other structures on the main campus of Duke University, is in 'Tudor Gothic style of colorful Cambrian stone from the Duke University quarries. It was occupied by the School of Law for the first time in September, 1930.

## THE LAW LIBRARY

The Law Library, containing a collection of seventy-nine thousand volumes, is the largest law school collection in the South. It consists of American and English statutory and case law ; a collection of Continental law materials; treatises, digests, encyclopedias; the various selected case series; a comprehensive collection of legal periodicals; and publications in the fields of history, economics, government, and the other social sciences, supplemental to the strictly legal materials. The Library receives every current legal periodical of general interest printed in the English language.

## THE LEGAL AID CLINIC

A Legal Aid Clinic was organized at the School of Law in 1931 under the direction of Professor John S. Bradway, who had directed similar undertakings in Philadelphia and Los Angeles. The purpose of the Clinic is threefold: to give the student experience in handling actual cases; to develop creative skills, techniques, and mental habits; to encourage a sense of responsibility to client, court, profession, and community.

## THE PRACTICE COURSE

The practice course in the School of Law is under the direction of Judge T. D. Bryson, who for eight years was judge in the Superior Court of the Twentieth Judicial District of North Carolina. The object of the
course is to offer advanced students an opportunity to visualize by actual experience the application of the principles of law imparted in other courses.

## LAW AND CONTEMPORARY PROBLEMS

The School of Law publishes a quarterly, Laiv and Contemporary Problems, under the editorship of Professor Latty. This periodical, now in its eleventh volume, presents in each issue a symposium on a problem of current legal importance, in which the interrelated social and economic, as well as legal, factors are discussed by writers of competence in these respective fields.

## THE DUKE BAR ASSOCIATION

The Duke Bar Association was established in the spring of 1931. It is composed of all the students of the Law School and is organized along the lines of the American Bar Association. Its purpose is to introduce the student to the problems considered by the bar in professional organizations and to develop professional consciousness and responsibility. The publication of the Duke Bar Association Journal was suspended during the war period.

## SCHOLARSHIPS AND LOAN FUNDS

A limited number of scholarships covering tuition and matriculation fees ( $\$ 250$ ) are available to first-year students, graduates of approved American universities and colleges, who are in need of such assistance. Applicants must have made excellent records in their college work and must show unusual promise of success in the study of law.

Applications for scholarships should be presented to the Dean of the Law School, together with a transcript of college work and letters of recommendation from responsible persons, certifying to the character and fitness of the applicant.

Other scholarships are awarded, as funds may permit, to high-ranking students who have spent a year or more at the Law School. There are also a number of positions as assistants in the Law Library and as research assistants which are open to students, particularly in their second or third year, who do not receive other aids from the University.

The University administers certain endowed loan funds for the benefit of students who are not financially able to meet their expenses, for the purpose of aiding worthy students who have established a satisfactory record at the School to continue their education.

Two funds have been provided out of which small loans may be made to tide students over temporary financial emergencies arising during the course of the year. One of these was supplied by the Law School Guild and is limited as to amount and duration of loan. The other is due to the generosity of Mr. P. Frank Hanes of the Winston-Salem bar and is limited to the needs of selected students. These funds are administered by a committee of the Faculty.

## WILLIS SMITH PRIZE

Mr. Willis Smith, a member of the Raleigh bar and Chairman of the Law School Committee of the Board of Trustees of Duke University,
awards each year to that member of the graduating class of the Law School who has maintained the highest scholastic average during the entire three years of law school work, a prize consisting of a set of books selected personally by Mr. Smith each year for that purpose. To qualify for this prize the student must have made an outstanding record throughout his law school course.

## ORDER OF THE COIF

A chapter of the Order of the Coif, national legal scholarship society, has been established at Duke University School of Law. Its purpose is "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship." Election is restricted to the ten per cent of the graduating class who have attained the highest rank in their law school work.

## PROGRAMIOF INSTRUCTION

A full semester's work will be offered for beginning and advanced students in the summer of 1946.

## THE FIRST-YEAR PROGRAM

The following courses, all of which are required, will be offered firstyear students:
Chattel Transactions ..... 4
Criminal Law and Its Administration ..... 3
Introduction to Procedure ..... 3
Torts ..... 5
THE SECOND-AND THIRD-YEAR PROGRAM

The following courses will be offered for students who have completed the required courses of the first year:

| Conflict of Laws | 3 | Evidence |
| :---: | :---: | :---: |
| Constitutional Law | 5 | Insurance |
| Damages | 2 | Municipal Corporations |
| Conveyancing | 3 | Regulation of Business (Seminar) 2 |
| Debtors' Estates | 3 | Seminar in Federal Tax Problems 2 |

The satisfactory completion of forty-eight semester hours and a minimum of twelve hours each semester in addition to the first-year program is required for graduation. Second- and third-year students usually carry from thirteen to fifteen hours of courses each semester.

Up to two hours credit per semester may be obtained by students arranging either to engage in the individual study of a branch of law or to conduct research on a legal problem. Arrangements for such work may be made only upon the recommendation of the instructor under whose supervision it is to be carried out.

The course in Pleading is prerequisite to the course in Practice. Except with the permission of the instructor, students may not enroll in courses numbered II before completing courses of the same name num-
bered I. Permission of the instructor is also required for enrollment in Federal Taxation Seminar by students who have not completed Taxation.

## FALL AND SPRING SEMESTERS-1946-47

With the Fall Semester of 1946, the Law School will return to its regular pre-war three-year (two semesters in each year) program of instruction. The courses have, however, been so arranged that students who entered under the accelerated program prior to the Fall Semester, 1946, will be able, by taking advantage of the Summer Semesters of 1946 and 1947, to graduate in two calendar years from the date of admission.

For students who enter in the summer of 1946, the following courses will be offered in the Fall and Spring semesters, 1946-47:

Fall-1946 Spring-1947

For students who enter in the Fall Semester, 1946, the following courses will be offered during the Fall and Spring semesters:


The following courses will be offered for students who have completed the work of the first year:

| Fall | Spring |  | Spring |
| :---: | :---: | :---: | :---: |
| Constitutional Law ....... 2 | 3 | Business Associations I |  |
| Credit Transactions ...... 2 | 2 | Contracts II |  |
| Equity . . . . . . . . . . . . . . . . . 2 | 2 | Debtors' Estates | 3 |
| Evidence . . . . . . . . . . . . . . 2 | 2 | Federal Jurisdiction and |  |
| Legal Aid Clinic . . . . . . . . 3 | 2 | Procedure | 2 |
| Practice .................. 2 | 2 | Future Interests |  |
| Taxation .................. 2 | 2 | Labor Law Seminar |  |
| Administrative Law ...... 2 |  | Landlord and Tenant |  |
| Agency . . . . . . . . . . . . . . 2 |  | Legal History |  |
| Business Associations II .. 3 |  | Legislation Seminar |  |
| Conflict of Laws . . . . . . . . 3 |  | N. C. Statutes | 2 |
| Conveyancing ............. 3 |  | Regulation of Business |  |
| Damages .................. . 2 |  | Family Law Seminar |  |
| Family Law .............. 2 |  | Seminar in Federal Tax |  |

[^80]Insurance ..... 2
Labor Law ..... 3
Legal Ethics ..... 1
Legislation ..... 2
Municipal Corporations ..... 2
Negotiable Instruments and Banking ..... 3
Pleading ..... 3
Seminar in Practice before Governmental Agencies ..... 2
Trusts ..... 3
Wills and Administration of Estates ..... 3

## SECOND-AND THIRD-YEAR PROGRAMS

All courses offered for the second and third years, with exception of Legal Ethics which is required of all students, are elective. For guidance of second-year students in 1946-47, the Faculty recommends the inclusion of the following courses in their program of study:

| Subject | Hours per Semester |  |
| :---: | :---: | :---: |
| Constitutional Law | 2 | 3 |
| Credit Transactions | 2 | 2 |
| Equity | 2 | 2 |
| Conveyancing | 3 |  |
| Pleading (Prerequisite to Practice) | 3 |  |
| Trusts |  | 3 |
| Business Associations I |  | 3 |
| Contracts II |  | 2 |
| Negotiable Instruments and Banking |  |  |
|  | 15 | 15 |

For the student who wishes to take, in his second year, courses other than those listed above, the following are suggested as suitable for study in the second year:

$$
\begin{aligned}
& \text { Agency ...................................... . } 2 \\
& \text { Damages ...................................... } 2 \\
& \text { Family Law .................................. } 2 \\
& \text { Insurance ........................................ . . . } 2 \\
& \text { Municipal Corporations .................. } 2 \\
& \text { Future Interests ............................. } 2 \\
& \text { Wills and Administration of Estates .... } 3 \\
& \text { Landlord and Tenant } \ldots \ldots \ldots \ldots \ldots \text {............... } 2
\end{aligned}
$$

It should be distinctly understood that the courses in this second list are not suggested as either more or less suitable for study in the third year than those not included therein. In the selection of courses in addition to or in substitution for those recommended above, the student should consult the course groupings appearing at another place in this bulletin, so that he may choose those courses which will contribute most directly to his work in the field of study to which he wishes to devote his major efforts in the third year. The student intending to enter the general practice of law is cautioned, however, not to sacrifice, through undue concentration, the acquisition of a broad foundation for his subsequent activities.

## DESCRIPTION OF COURSES

## ACADEMIC YEAR-1946-47 <br> 1. GENERAL COURSES

Torts.-Three hours a week first semester, two hours a week second semester. Professor Maggs

Equity.-Two hours a week throughout the year.
Trusts.-Three hours a week.
Dean Horack

Conflict of Laws.-Three hours a week.
Family Law.-Two hours a week.
Family Law Seminar.-Two hours a week.
North Carolina Statutes.-Two hours a week.
Damages.-Two hours a week.
Professor Lowndes
Professor to be Announced

Legal History.-Two credit hours.
Professor Bradway
Professor Bradway
Judge Bryson
Professor Shepherd

## 2. BUSINESS COURSES

Contracts.-Four hours a week throughout the year. Professor Shepherd
Agency.-Two hours a week.
Professor Latty
Negotiable Instruments and Banking.-Three hours a week.
Professor Lowndes
Insurance.-Two hours a week.
Professor Sanders
Professor Latty
Business Associations I.-Three hours a week.
Business Associations II-Finance and Accounting.-Three hours a week.
Professor Latty
Credit Transactions.-Two hours a week throughout the year.
Professor to be Announced
Debtors' Estates.-Three hours a week. Professor to be Announced
Regulation of Business.-Three hours a week.
Professor to be Announced

## 3. PROPERTY COURSES

Chattel Transactions.-Four hours a week.
Professor Latty
Possessory Estates.-Three hours a week.
Professor Bolich
Conveyancing.-Three hours a week.
Professor Bolich
Future Interests.-Three hours a week.
Professor Bolich
Wills and Administration of Estates.-Three hours a week.
Professor McDermott
Trusts.-Three hours a week.
Landlord and Tenant.-Two hours a week.
Professor Bolich

## 4. PUBLIC LAW COURSES

Criminal Law and Its Administration.-Three hours a week.

Constitutional Law.-Two hours a week first semester, three hours a week second semester. Professor Maggs
Administrative Law.-Two hours a week.
Labor Law.-Two hours a week.
Labor Law Seminar.-Two hours a week.
Legislation.-Two hours a week.
Legislation Seminar.-Two hours a week.
Professor Maggs
Professor Sanders
Professor Sanders
Professor McDermott
Professor McDermott
Regulation of Business.-Three hours a week.
Professor to be Announced
Municipal Corporations.-Two hours a week. Professor McDermott
Taxation.-Two hours a week throughout the year Professor Lowndes
Seminar in Federal Tax Problems.-Two hours a week.
Professor Lowndes
Seminar in Practice before Government Agencies.-Two hours a week.
Professor Roalfe
5. PROCEDURE AND PRACTICE COURSES

Introduction to Procedure.-Three hours a week.
Professor to be Announced
Pleading.-Three hours a week.
Judge Bryson
Practice.-Two hours a week throughout the year. Judge Bryson
Evidence.-Two hours a week throughout the year.
Professor McDermott
Federal Jurisdiction and Procedure.-Two hours a week.
Professor to be Announced
Legal Ethics.-One hour a week.
Professor Bradway
Legal Aid Clinic.-Three hours a week first semester, two hours a week second semester.

Professor Bradway

## 6. LEGAL RESEARCH AND WRITING

Legal Research and Writing.-Two hours a week throughout the year.
Professor Roalfe, Members of the First-Year Faculty

## THE SCHOOL OF MEDICINE

Wilburt Cornell Davison, A.B., B.A., B.Sc., M.A., D.Sc., M.D., LL.D. Dean

Winter Quarter begins January 2, 1946, ends March 23; Spring Quarter begins April 1, ends June 22; Summer Quarter begins July 1, ends September 14; Autumn Quarter begins October 7, ends December 21.

## GENERAL STATEMENT

Duke University School of Medicine and Duke Hospital were established in 1930, through the munificent gift of the late James B. Duke. The School of Medicine has been planned to insure the greatest correlation between the various departments. These facilities are available also for students who are studying for degrees other than that of Doctor of Medicine. The School of Medicine has been approved as Class A by the American Medical Association and is also a member of the Association of the American Medical Colleges. On January 1, 1946, two hundred and eighty-two students were enrolled.

## FACILITIES OF THE HOSPITAL

Duke Hospital, an integral part of Duke University School of Medicine, has every modern convenience for the diagnosis, proper care, welfare and comfort of the patients, both private and charity, white and colored, whether they come from Durham or from a distance. It has 604 beds, including 50 bassinets for newborn infants. Medicine, including dermatology and neurology, has 75 ward beds; surgery, including urology, otolaryngology, ophthalmology, and orthopaedics, 145 ward beds; obstetrics, including gynecology, 56, and 50 bassinets; neuropsychiatry, 23 ; and pediatrics, 40 . There are 212 private rooms and semiprivate cubicles, 7 air-conditioned operating rooms, 4 obstetric delivery rooms, and ward and student laboratories. Offices and examining rooms for members of the Medical Faculty are located in the Hospital. The Hospital has been approved for internships and residencies by the Council on Medical Education and Hospitals of the American Medical Association, and the. American College of Surgeons.

Duke Hospital and its Out-Patient Clinic were opened for patients on July 21, 1930. Two hundred and fifty-six thousand, five hundred individuals have been examined, diagnosed, and treated up to June 30, 1945. The average daily census of hospital patients during the past year was $438 ; 79,922$ visits were made to the Out-Patient Clinic during the same period. Fifteen per cent of the patients come from within a radius of twenty miles, the remaining 85 per cent come from the other 99 counties in North Carolina and from 36 other states and 3 foreign countries. The average distance traveled by the patients is more than seventy miles.

Every effort is being made to co-operate with the medical profession, and patients are asked to return to the physicians who referred them to the Hospital and Clinic.

Public Ward Patients. Duke Hospital cannot give charity treatment to all who apply; therefore, patients whose incomes are less than $\$ 15$ per week should apply to the Out-Patient Division of the Duke Clinic.

Private Patients. Patients who can pay the ward and private rates may at any time, through their family physicians, in consultation with any member of the Hospital Staff, make reservations by telephoning to the Admitting Office. Appointments for private examinations and treat-
ments may be made in advance by telephoning to the Private Diagnostic Clinic.

## SCHOOL OF NURSING

The next class of students will be admitted to the Duke University School of Nursing on September 26, 1946, but applications will be considered at any time. Information about the entrance and other requirements, length of course, tuition fees, application forms, and bulletins may be obtained by writing to the Dean of the School of Nursing, Duke University, Durham, N. C.

## SCHOOL OF DIETETICS

In addition to the dietetic training of the students of the Schools of Medicine and Nursing, thirteen student dietitians may be admitted to the School of Dietetics and given the certificate of graduate dietitian after the successful completion of one year. The entrance requirements are a Bachelor's degree from an approved university or college, with majors in nutrition and institutional management, and the courses in chemistry, biology, social science, and education recommended by the American Dietetic Association. The course for student dietitians provides instruction in all phases of hospital and institutional dietetics, including experience from the buying and storage of food to its service to the patients according to the physician's orders. In addition, if applying for graduate credit, they will be required to complete the courses in biochemistry, nutrition, and selected portions of physiology as given to the medical students.

The course starts the first of September. If a student receives advanced credit, a tuition fee of $\$ 50$ is charged. All students pay a registration fee of $\$ 10$ at the time of appointment; maintenance is provided. More detailed information and application blanks may be obtained from the Professor of Dietetics, Duke University School of Dietetics, Durham, N. C.

## HOSPITAL ADMINISTRATION

Ten internships in hospital administration leading to a certificate will be available to university graduates whose character, tact, and ability for leadership are good, and whose academic standing is high. These internships are of two or three years' duration and pay a small salary in addition to room. board, and laundry. Vacations of two weeks are allowed at the beginning of the second and third years of internship.

The instruction is practical rather than theoretical in emphasis. The interns are rotated through six different assistant administrative positions in the Hospital. There is also a weekly seminar lasting two hours.

During these two or three years, the interns also register in the Graduate School of Duke University, and receive the A.M. degree after the successful completion of a thesis and twenty-four semester hours of university courses in various fields. Further information may be obtained by writing to the Superintendent. Duke Hospital, Durham, N. C.

## COURSE IN LABORATORY TECHNIQUE

The course in laboratory technique includes training in blood chemistry, clinical microscopy, bacteriology, serology, basal metabolism, and histopathological technique. The course is approved by the Registry of Technicians of the American Society of Clinical Pathologists, and lasts eighteen months. The next class will start October 7, 1946. The entrance requirements are two years of approved college work, including credits in biology or zoology, and inorganic, analytic and organic chemistry. The registration fee is $\$ 75$, and there are no additional charges, except for breakage. The students live in town at their own expense. Applications may be sent to Dr. David T. Smith, Duke Hospital, Durham, N. C.

## ANESTHESIA

A twelve months' course in anesthesiology is offered to eight registered nurses each year. Appointments are made on the basis of individual merit and qualifications. Classes begin each January 15. April 15, July 15 and October 15. A tuition fee of $\$ 100.00$ covers all necessary expenses as full maintenance is provided for each appointee. The training includes two hundred hours of theory of anesthesiology. Practical experience, averaging seven hundred and fifty anesthetics, is given in the administration of all agents and techniques in modern usage. A graduate of this course is eligible for membership in the American Association of Nurse Anesthetists. Additional information concerning the training, and application forms may be obtained from Miss Mary H. Snively, Duke Hospital, Durham, N. C.

## MEDICAL SOCIAL SERVICE

Medical Social case-work service is offered to patients referred by personnel within the Hospital, and by interested individuals and health and welfare agencies outside of the Hospital. Assistance and advice in connection with the problems presented are available to the members of the Staff and referring agencies.

The division also assists in teaching social and environmental aspects of illness and medical care through consultations and lectures to the students of the Schools of Medicine and Nursing. In addition, it serves as an agency for supervised field work for students of the Graduate School of the University of North Carolina. Further information concerning training for advanced students may be obtained from the Social Service Division, Duke Hospital, Durham, N. C.

## RECORD LIBRARY

A course for the training of medical record librarians, which has been given full approval by the American Association of Medical Record Librarians, and the American Medical Association, includes all details of the theory and practice of clinical record library methods. The length of the training is twelve months. The tuition fee is $\$ 100$ and does not include maintenance. Applications may be made to the Medical Record Librarian, Duke Hospital, Durham, N. C.

## PHYSICAL THERAPY

A twelve months' course in physical therapy is offered for men and women graduates of accredited schools of physical education or nursing, and for selected applicants who have completed sixty college semester hours including credit in the biological sciences, physics, chemistry and psychology. The curriculum provides instruction in anatomy, physiology, kinesiology, pathology, psychology, electrotherapy, neuropsychiatry and practical pathology. Instruction in the clinical subjects is given by members of the faculty of the School of Medicine. Practical training will be given at Duke Hospital and affiliated institutions and includes supervision of orthopaedic problems in the Durham Public Schools. Students are accepted twice yearly, in September and March. The tuition fee is $\$ 200.00$, and does not include maintenance. A certificate is awarded upon successful completion of the course. In addition to the training of physical therapy students, courses are given to the students of the Schools of Medicine and Nursing. Further information and application blanks may be obtained from Miss Helen L. Kaiser, Duke Hospital, Durham, N. C.

## POSTGRADUATE STUDY

The School of Medicine is not limited to the training of its own students and Staff, but extends to the members of the medical profession the benefit of everything it has. Graduates in medicine are welcomed especially at the various clinics and demonstrations in medicine, surgery, obstetrics, and other specialties, which are held from 9:30 A.M. to 12:30 P.M. each Saturday and at the clinical-pathological conferences at 5 P.M. on alternate Fridays, as well as at the daily ward-rounds in the mornings and the out-patient clinics in the afternoons. They can start at any time and remain as long as they wish. Additional special work in any department for a period of not less than three months may be arranged by consultation with the head of the department concerned. Board and room can be obtained for $\$ 12$ to $\$ 20$ per week. (Some rooms may be obtained on the university campus by writing to Mr. W. E. Whitford, Duke University, Durham, N. C., at least a week in advance. These rooms are provided with furniture, heat, light, and the care of rooms; each occupant furnishes his own blankets, sheets, towels, pillow cases and pillows.) A certain number of residencies are available at Duke Hospital in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, pathology, and biochemistry. Further information can be obtained by writing to the Dean.

Returning veterans are requested to register on arrival with Miss Margaret Jones, Room 131, who will assist them in obtaining the benefits of the G. I. Bill of Rights which will provide tuition and also $\$ 50$ per month for maintenance ( $\$ 75$ if married).

## INTERNSHIPS AND RESIDENCIES

Internships of twelve months' duration with room, board, laundry, and uniforms furnished, but without salary, are available in medicine, surgery (including general surgery, urology, and orthopaedics), orthopaedics,
urology, otolaryngology-ophthalmology, dentistry, obstctrics and gynecology, cndocrinology', pediatrics, neuropsychiatry, and pathology', commencing April 1, 1946, January 1, 1947 and July 1, 1947.

Application blanks for all internships, which must be returned at least three months before the beginning of the internship desired, may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C. Graduates of any Class A medical school are eligible for internships.

After the completion of an internship in Duke Hospital or in another acceptable hospital, a certain number may be appointed as assistant residents in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, meurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, pathology, biochemistry, or the Student Health Service, or as fellows of the Private Diagnostic Clinic, at a salary of \$250 to $\$ 500$ per year with maintenance, and eventually may be promoted to the residency in the various departments or subdepartments of the Hospital at an annual salary of $\$ 500$ to $\$ 1,000$ with maintenance. Applications should be made to the head of the department concerned.

## LIBRARY

In addition to the General Library of Duke University and the departmental libraries of biology, chemistry, physics, etc., which have 680,228 volumes available for medical students, Duke Hospital Library contains 42,571 volumes of American and foreign medical literature and subscribes to 440 current American and foreign medical and other scientific journals. These books and journals are available daily from 8:30 A.M. to 11:00 P.M. for the students, nurses, staff, and medical profession.

## REQUIREMENTS FOR ADMISSION

The minimum requirements for admission to this School include approved college credits of not less than ninety semester hours, which shall include adequate preparation in English, mathematics, physics, biology, and chemistry. This preparation should be obtained in college courses of one-year duration except for chemistry. In that subject a two-year course is recommended: the first year to cover general (inorganic) chemistry; the second, analytic and organic chemistry.

The premedical student should be aware of the importance of a wellrounded general education as a preparation for the study of medicine and not limit himself to scientific courses. He would be better advised to secure a knowledge of the principles and a thorough appreciation of the interrelations of the basic sciences than to accumulate credits in many courses. He should learn how to work independently, to observe critically, and to analyze, rather than simply store, the information presented. His choice of studies, beyond those required for admission, should be governed by his own chief interests and by the intellectual stimulus to be derived from the work. His major interest may be in any field, scientific or otherwise, and should provide an opportunity for the demonstration of his real ability. In general, he should avoid courses in subjects which are included in the medical curriculum.

The selection of students is based upon the quality rather than the
quantity of preparation and upon demonstrated evidence of personal attributes of intelligence, character, and general fitness for the study and practice of medicine. In considering an applicant many sources of information may be consulted, including (1) his curricular and extracurricular college record, (2) carefully prepared, confidential appraisals by teachers who know him personally, (3) his percentile rating on the Medical Aptitude Test,* (4) his record in the Graduate Record Examination, $\dagger$ and (5) the results of an interview with members of the Admission Committee or one of its Regional Representatives.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICINE

After the completion of six quarters in the Duke University School of Medicine, Duke University, on the recommendation of the Executive Committee, grants the degree of Bachelor of Science in Medicine to medical students who have completed creditable investigative work, prepared an acceptable report of the investigation, and passed an examination upon the subject of the investigation before an advisory committee. Students who elect to undertake work toward this degree must obtain written permission from the Executive Committee after approval of their program by the head of the department in which the work is to be done. No credit toward this degree is given for additional college work. All students in good standing are encouraged to undertake such investigative work as they may elect with the approval of the head of the department in which they wish to work. All requirements must be completed three months prior to the date on which the B. S. degree is requested.

## REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE

The degree of Doctor of Medicine is conferred on those who have completed, to the satisfaction of the Executive Committee, the twelve quarters of 11-12 weeks each of the curriculum of the School of Medicine, the preclinical and clinical examinations, and have signed an agreement that they will spend at least two years of the succeeding three years in hospital or laboratory work acceptable to the Executive Committee. As a guarantee of this pledge the diploma is deposited in the Treasurer's Office until after the completion of this training. Failure to fulfill this agreement constitutes a waiver of any claim to possession of the diploma and the degree of Doctor of Medicine. During the present emergency, the required period of approved hospital or laboratory training the latter half may be active duty in the Army, Navy or U. S. Public Health Service.

[^81]
## DEPARTMENTS OF INSTRUCTION


#### Abstract

Anatomy The required courses of instruction in gross human anatomy, histology, and neurology are scheduled for five and one-half days a week for a period of eighteen weeks during the first quarter and the first half of the second quarter. In all of this work considerable freedom is allowed the student in his selection of working hours and in the planning of his own methods of attack. Emphasis is placed upon the study of material in the laboratory. In an attempt to utilize more fully the laboratory time, visual educational methods are employed as fully as possible. These techniques consist of colored motion pictures of demonstration dissections, colored lantern slides, animated motion pictures of development and movies of serially sectioned material, both embryological and neurological. All of the instruction is designed to be as informal and as nearly individual as possible. General principles and the functional viewpoint of living anatomy are stressed in the hope that the student may be stimulated to secure a working knowledge of anatomy in the broadest sense. Whenever possible, fresh tissues and living cells are made available for examination, and clinical cases exemplifying anatomical principles are studied whenever they are available at appropriate times. Through the co-operation of the Department of Radiology, the students are given an opportunity to study portions of the living human body as revealed by the fluoroscope and roentgenograph. The following elective courses are offered:


Demonstrations in Anatomy. Using dissections already prepared, weekly demonstrations of selected regions or systems are made by the members of the group. Sixth quarter-Two hours per week by arrangements. Second-year students in groups of 10.

Review in Anatomy. During the sixth quarter, a review in anatomy will be presented by the visual education methods outlined above, covering gross and neuro-anatomy, and histology. This optional review carries no units of credit. It is designed to refresh the student's knowledge of anatomy just before he begins to apply it during the clinical quarter.

Special Neuro-anatomy. Laboratory work and conferences upon selected portions of the human central nervous system. A two-quarter course limited to 6 junior or senior students. Tuesday and Thursday mornings of the first quarter are devoted to study of sections and dissections of the brain stem. Satisfactory completion of the first quarter will determine admission to the second quarter seminars- 2 hours weekly by arrangement-upon special topics in neuro-anatomy and neurophysiology.

Brain Modeling. Free-hand reconstruction in clay, from gross and sectioned material, of the chief tracts and nuclei of the human brain stem. A two-quarter course, by arrangement-4 to 10 students.

Experimental Neurology. An operative and laboratory study of the effect of various lesions upon the central and peripheral portions of the nervous system. 4 to 8 junior and senior students by arrangement. Pre-requisite-operative surgery.

Seminar. This work is designed for those who are interested in becoming acquainted with some of the original literature on anatomical problems. A wide range of clooice in the selection of topics is encouraged. Weekly, any quarter; time by arrangement. 6 to 10 students.

Advanced Studies in Anatomy. Further work in the several branches of anatomy may be arranged at any time. Prospective candidates for such work should discuss their desires with the members of the staff in charge of the particuiar field in which work is requested, since only a small number can be accommodated at any one time. A few properly qualified students may be permitted to undertake original research under the direction of various members of the staff.

## Biochemistry

The required course in general biochemistry for first-year students is given over a period of eighteen weeks comprising the last half of the second quarter and throughout the third quarter. Two lectures, four laboratory periods, and one conference period per week are devoted first to the correlation of the fundamental facts and theories of physical and organic chemistry of proteins, fats, and carbohydrates with the chemistry of living organisms; followed by an intensive study of the chemical aspects of the processes of digestion, absorption, circulation and respiration, acid-base and salt equilibrium, intermediary and over-all metabolism. Each student carries out on himself a fairly complete, metabolic balance study involving quantitative analyses of blood and urine.

Since the success of the students in this course is largely determined by the adequacy and ready availability of their premedical training, it is urged that all students review the fundamental laws, theories, and facts of chemistry before the beginning of the course. A circular outlining the topics requiring special attention is sent to all students upon admission. Additional copies of the circular may be obtained from the Dean's Office. An examination to test the state of preparation of the student is given in the beginning of the course in biochemistry.

Electives. In connection with the course given in the sixth quarter for second-year students a survey of pathological and clinical chemistry is presented. In this course are covered abnormalities of protein, fat and carbohydrate metabolism, acid-base regulation, salt and water distribution, nitrogen retention, calcium and phosphorus metabolism, blood and derived bile pigments. The discussion of these topics is based upon case histories, including the records of the Clinical Chemical Laboratory of the Hospital.

Biochemical Research. The facilities of the department, including various types of research equipment and the clinical material of the blood chemistry laboratory, are available to properly qualified students for inde-
pendent or supervised investigations. Chemical investigations of problems in biochemistry or in conjunction with the clinical and pathological departments may be carried on.

Seminar in Toxicology. A round-table discussion of the homicidal, suicidal and industrial poisons, alcoholism, etc., by arrangement.

Laboratory Detection of Common Poisons. A laboratory course in the properties, detection, and identification of the common poisons. Consideration is given to the types of material to be examined, legal precautions to be taken and interpretation of the findings, by arrangement.

Chemistry of Proteins, Enzymes, and Viruses. A two-hour seminar is given weekly throughout the Autumn, Winter, and Spring Quarters.

Immunochemistry. A two-hour seminar given in collaboration with the Department of Bacteriology. This course is given in alternate years with the preceding course in protein chemistry.

## Physiology, Pharmacology and Nutrition

The elements of physiology, pharmacology and nutrition are taught in the laboratory and in frequent conferences.

Research. A few properly qualified students are permitted to undertake original research in physiology, pharmacology or nutrition under the direction of various members of the staff.

## Pathology

General Pathology. The course in general pathology is given during the fourth and fifth quarter of the curriculum, following completion of the prerequisite courses in anatomy, physiology and biochemistry. The course in pathology is co-ordinated with that in bacteriology, the timing and arrangement of the two courses being such that the general principles governing the growth and propagation of bacteria are covered before the students undertake the study of bacterial parasitism in the course in general pathology.

The objects of the instruction in pathology are briefly as follows: (a) to provide an opportunity for the medical student to gain a comprehensive knowledge of general biological principles as they may be observed in the diseased animal, (b) to guide the student in his study of the basic pathological reactions of animal tissues and of the individual as a whole to the environmental influences under which they live, and (c) to acquaint the students with the common disease entities. The course embraces a study of the nature, causation, development and outcome of disease; in brief, a comprehensive study of the reactions of the body to injury. The schedule of instruction falls into three major divisions, each dealing with one of the basic reactions to injury (submission, resistance, adaptation) and the disease entities arising out of their elaboration. A short period of orientation introduces the three major divisions of the schedule.

The permanently preserved materials of instruction consists of: (a) a museum of fixed tissues, preserved in unsealed containers in each of which are deposited the organs from a single case, (b) the histological prepara-
tions made in the study of these cases, (c) complete clinical and anatomical protocols corresponding to the cases, and (d) a supplementary loan collection of microscopic preparations and lantern slides. These materials are in addition to those from the current autopsies, which average about 325 a year. All materials are catalogued and are grouped in such a way as to facilitate their use by the individual students and by the small groups into which the class is divided.

All the museum work of the class is done with small groups, each under the guidance of a senior instructor and his junior assistant. The assignment of instructors is changed at appropriate intervals. The chief emphasis of instruction is upon the basic pathological processes underlying the well-established disease entities. The central theme of the course is carried by lectures which orient the museum work of the various student groups. Although the emphasis is upon the basic reactions to injury and the corresponding pathological processes, this is accomplished through the study of actual cases of human disease in which these general pathological processes occur. Disease is presented to the study as a natural phenomenon referable to the body as a whole, and no distinction is drawn between the basic pathological processes as they may happen to occur in the different organs of the body; nevertheless, adequate account is taken of their variations in localization and associated functional disturbances, etc., under different sets of circumstances, as the cases of well-defined disease entities are studied. The histological aspects of the pathological processes are studied coincidentally with the gross anatomical and physiological alterations of the tissues, thus maintaining a unity of conception of disease. As the various pathological processes and the disease arising from their elaboration are studied by the student groups, assignments involving reports on the study of groups of cases are made to individual students.

The group work and the individual student reports are supplemented by weekly conferences involving the class as a whole and dealing with problems presented by current autopsies and with other problems of general importance. Student collaboration in the post-mortem study is required. For this purpose the class is divided into groups of three students. One of these makes a bacteriological study of the case, but each student is required to make his own general pathological study of the case with appropriate protocols. Cases thus prepared are presented by the students before the class under the direction of the staff; this takes the form of a clinical-pathological conference in which each student plays a separate role.

Elective Courses. Special courses in pathology are given to students who have completed the course in general pathology. These courses are elective and are available through special arrangement.

Clinical-Pathological Conference. A clinical-pathological conference for advanced study, is held on alternate Fridays during three quarters of the year. It is open to all persons interested, but is designed especially for the Hospital and Medical School Staff. Attendance by all the students is encouraged but is optional. This conference deals with a single
case which serves as a text for the discussion of fundamental problems related to the nature, cause, development, and treatment of disease.

On alternate Saturdays a diagnostic clinical-pathological conference is held in collaboration with the staffs of the medical and pediatric departments, dealing with current autopsies from these services. Attendance of the junior and senior students is required at this conference, in which they take an active part.

Miscellaneous weekly clinical-pathological conferences dealing with current cases under treatment on the various surgical services are held for instruction of the resident staffs concerned.

Student Research. Research facilities are provided for competent students. Those who show an interest in investigative work are given every encouragement and are allowed to work independently or in collaboration with the staff.

Postgraduate Instruction. The staff of the department is composed of senior nonresident and junior resident members. The junior resident staff consists of interns, assistant residents, and a resident; all of these are active teachers as well as advanced students of disease. Ample opportunity for the development of careers in the field of pathology is provided for these men. Appointments are renewable over a number of years with appropriate advancement for those who demonstrate ability and adaptability for work in this field.

Medicolegal Instruction. The department works in close cooperation with the local coroner's office. A large proportion of the coroner's post-mortem investigations are made by the staff. Special medicolegal investigations for others are undertaken from time to time. The department collaborates with other departments of the Schools of Medicine and Law in an elective course in legal medicine that is given in alternate years.

Comparative Pathology. The department maintains a pathological diagnostic service for the State Laboratory of Animal Industry, from which valuable materials are obtained for the study of diseases of domestic animals. This connection also facilitates a close collaboration in experimental investigations between the staff and the Bureau of Animal Industry.

## Bacteriology and Parasitology

Bacteriology, Immunology, Parasitology, and Mycology. The required course is given in the fourth quarter. An intensive study is made of the common bacteria, fungi, and parasites which cause disease in man. The scope of the laboratory course is reasonably wide and acquaints the student with all the methods and procedures employed in bacteriological laboratories. Most of the lecture time is devoted to the immunological and epidemiological aspects of infection. The instruction is designed to give the students a clear conception of: (1) how organisms gain entrance to the body, (2) the type of poisons which they produce, (3) the nature of immune bodies which are produced by the host, and (4) the methods of preventing the disease by active and passive immunization.

Research Bacteriology. Opportunities for original investigations are afforded a few specially qualified students.

Clinical Bacteriology. During their clinical clerkships on medicine (one quarter each for junior and senior classes), the students may perform the routine and special bacteriological work for the patients assigned to them on the teaching service, under the direction of the Department of Bacteriology and in parallel with the Biological Division of the medical clinic.

## Medicine

Clinical Microscopy is given in the fifth quarter. The course includes the essentials of hematology and the examination of fresh material, such as urine, stools, spinal fluids, sputum, transudates, and exudates. The most important parasites of man are studied by the use of fresh and museum material. Second-year and senior students are given opportunities for special work and for investigation.

Physical Diagnosis and Introduction to Clinical Mcdicine. This course, in the sixth quarter, consists of instruction in history taking, physical examination, and the application of the preclinical sciences to the interpretation of findings. All departments, preclinical and clinical, including the specialties, participate. The importance of co-operation between clinic and laboratory is emphasized, and the preclinical departments extend the teaching of their particular branches in correlation with other preclinical and clinical studies. In this manner the course serves as an introduction to clinical medicine. The class is divided into sections of not more than ten students, and each student is given individual instruction.

Junior Medicine. Junior students are assigned in small groups for one quarter to the medical wards as clinical clerks. Teaching rounds are held from 8:30 to 9:30 A.M. on Mondays, Wednesdays, and Fridays. Medical clinics are given on Mondays, Wednesdays, and Saturdays at $11: 30$ A.M.

Therapcutics. Each group of junior students receives practical instruction in pharmaccutics under the guidance of an instructor in pharmacy. On Tuesdays and Thursdays from 1:30 to 2:30 P.M. bedside instruction is given in applied pharmacology and therapcutics to the group on Junior Medicine.

Scnior Mcdicinc. Senior students are assigned for one quarter to the out-patient clinic as clinical clerks. Teaching rounds are held from 9:30 to $11: 30$ A.M. on Mondays and Fridays. Seniors attend medical clinics on Mondays, Wednesdays, and Saturdays at 11:30 A.M.

Cutaneous Medicine and Syphilology. Instruction consisting of lectures, seminars, and study and treatment of patients in the out-patient clinic is offered each quarter to senior students.

Neurological Medicine. A sound understanding of neurological diseases is an essential equipment of every physician. Junior students are assigned neurological cases routinely during their service as medical clinical clerks. An elective course consisting of advanced bedside teaching in clinical neurology is offered for three quarters to senior students. The Laboratory of Experimental Neurology is available for postgraduate investigative work; this laboratory handles routinelv the neurosurgical bionsy material. including intracranial tumors. An electro-encephalograph is in routine clinical use in both neurology and neuropsychiatry and is available for special research problems.

## Neuropsychiatry

Instruction starts in the first year with an introductory course in psychobiology. In the second year, methods of psychiatric examination and a general presentation of the main reaction types are given. Each third-year student has a two-week clerkship on the psychiatric ward, and in the fourth year patients are worked up in the out-patient clinic for a period of three and a half weeks. A neuropsychiatric ampitheater clinic is held weekly throughout the year for third- and fourth-year students. Elective courses in neuropsychiatric methods of research, neurophysiological aspects of neuropsychiatry, psychosomatic medicine, psychoanalysis in medicine, and principles of psychotherapy are offered to fourth-year students. Students are invited to attend the staff case conferences, the monthly psychosomatic conferences and the conferences on neuropsychiatric disorders of childhood. Emphasis is placed upon the close relationship of psychiatry to other branches of medicine. Internships are available in neuropsychiatry with the expectation that they will lead to progressively greater interest in the neuropsychiatric problems encountered on all other services in the Hospital. Investigation is encouraged.

## Surgery

General Surgery. In the sixth quarter the second-year students, during their course in physical diagnosis, attend clinics and demonstrations arranged to familiarize them with the techniques of examinations and the diagnostic procedures used in general surgery and the surgical specialties. Emphasis is placed on the more practical and commonly used methods.

During the last six quarters at $11: 30$ A.M. on Tuesdays and Fridays and at 9:30 A.M. on Saturdays, clinics in surgery and the surgical specialties are held for junior and senior students. The junior students, during their surgical quarter, attend ward rounds in surgery from $8: 30$ to $10: 30$ A.M. on Mondays, Wednesdays, and Fridays, act as clinical clerks on the wards, assist in the operative treatment of patients assigned to them, and attend the out-patient clinic on Tuesday and Thursday afternoons. They obtain experience in anesthesia and operative surgery on animals with emphasis placed on general surgical principles. The surgical students in the senior year attend ward rounds from 8:30 to 11:30 A.M. on Mondays, Wednesdays. and Fridays, all the regular clinics, and assist in the surgical out-patient clinics in the afternoon. Also in groups of two for the proportionate time available they are assigned to the emergency division of the out-patient clinic where they assist in the diagnosis and care of urgent conditions, and to the anesthesia division where they obtain instruction and practical experience in anesthesia. Individuals may take any of the electives offered.

A six days' concentrated course of training in the administration of anesthesia is open to twenty-four medical students each school quarter. Properly qualified students observe and administer anesthesia under direct supervision of staff anesthetists.

Otolaryngological Division. An introductory course of instruction in
the use of otolaryngological instruments, with a review of normal anatomy, is given to second-year students in the sixth quarter. Clinics on Fridays at $11: 30$ A.M. during one quarter of each year are given to junior and senior students; junior students during their obstetric quarter spend two afternoons for five and one-half weeks in the otolaryngological outpatient clinic. There are no formal otolaryngological ward rounds, but junior and senior students are assigned to patients during the surgical quarter, and group teaching on clinical cases is held at 10:30 A.M. each Wednesday during this quarter. Individual instruction is given the student by the various members of the staff. Each quarter an elective course is given in ear, nose, and throat conditions. This course includes anatomy; physiology; diseases of ear, nose, and throat; x-ray interpretation; and the use of diagnostic instruments.

Ophthalmological Division. During the sixth quarter second-year students receive instruction in elementary ophthalmology. During the senior pediatric quarter the students work in the ophthalmological out-patient clinic as assigned, and assist in the study and treatment of eye diseases. Especial emphasis is placed on the underlying medical and surgical conditions. Each student follows throughout his time in the out-patient clinic all patients assigned to him. For those who manifest an unusual interest in this specialty, provision will be made for more advanced work. Throughout the senior surgical quarter the students attend ophthalmological ward rounds for one hour each week, and during each academic year three clinics covering the more general neuro-ophthalmological and medical problens are given to all third- and fourth-year students.

Orthopaedic Division. In the sixth quarter an introductory course is given. During the surgical quarters the junior and senior students attend orthopaedic ward rounds at 9:30 A.M. on Mondays and attend fracture ward rounds at $9: 30$ A.M. on Fridays. Amphitheater clinics are held one quarter of each year at 11:30 A.M. on Fridays for juniors and seniors. Students in their senior surgical quarter are assigned in rotation to the orthopaedic out-patient clinic, which is held each afternoon from Mondays to Fridays, inclusive ; these students attend orthopaedic staff rounds at 5:30 P.M. Mondays through Fridays and may attend the Journal Club meeting, x-ray conference, and general ward rounds with the staff from 10:00 A.M. to 1:00 P.M. on Sundays. An elective course in the treatment of fractures is offered during the junior and senior surgical quarters. In this course the students get practical training in the reduction of fractures, the application of plaster of Paris casts, and in the follow-up treatment of fractures. Elective courses in physical therapy and in the care of cerebral palsy patients are offered to the junior and senior stụdents. Arrangements may be made for students who wish to do research or experimental work. Students are given the opportunity of attending the North Carolina Orthopaedic Hospital Clinic at Goldsboro the third Thursday of each month. They may also attend similar clinics held in Lumberton the first Friday of each month, in Elizabeth City the last Tuesday of each month, and in Tarboro the Monday before the last Tuesday of each month. By special arrangement with the cur-
riculum committee senior students in the surgical quarter may by application do substitute intern work at the North Carolina Orthopaedic Hospital in Gastonia.

Urologic Division. In the sixth quarter, second-year students are given a course of lectures and practical demonstrations in urologic physical diagnosis in the normal individual student. Ward rounds on urologic patients are given every Saturday at 8:30 A.M., throughout the year, which junior students in their surgical quarter, and the senior surgical group are required to attend. During each quarter, small groups are selected from the senior surgical group of students and assigned in rotation to the urologic out-patient clinic every afternoon. Here, under proper supervision, they study patients and give recommended treatment. During one and a third quarters of the year urologic clinics are given on Fridays at 11:30 A.M. for the junior and senior classes. These clinics deal with the affections of the male and female urinary tract and of the male genital tract. Clinics for urethroscopic and cystoscopic investigation and for the more technical methods of urologic diagnosis and treatment are held Monday, Wednesday, and Thursday from $1: 30$ to $5: 00$ P.M. and Tuesdays and Thursdays from 9:30 A.M. to 12:30 P.M. throughout the year. X-ray conferences on all urologic cases are held Tuesday, Thursday, and Saturday mornings from 8:30 to $9: 30$ and are followed by staff rounds. Three senior students may select one of these cystoscopic clinics, x-ray conferences, and staff rounds as an elective. The Urologic Journal Club meets each Monday from $4: 30$ to 6:30 P.M., and members of the staff review their respectively assigned journals. Interested students are welcome.

Neurosurgical Division. Throughout the year at 9:30 A.M., on Saturdays, eight neurosurgical clinics are held for junior and senior students, at which the general principles of neurosurgical diagnosis and treatment are discussed. During all four quarters, weekly ward rounds are held at $8: 30 \mathrm{~A} . \mathrm{M}$. on Fridays for the senior surgical group. Emphasis in these smaller clinics is placed upon the recognition of neurosurgical problems, followed by observation of the operative and postoperative procedures. Weekly x-ray and pathological conferences are held, and these may be attended by interested individuals.

Division of Plastic Surgery. Throughout the academic year, at $10: 30$ each Wednesday morning, a series of ward rounds is given to familiarize both third- and fourth-year students with the principles and practice of plastic and oral surgery. These fundamental lectures are supplemented with Kodachrome movies, demonstrating single and multiple staged operative procedures. Pre- and post-operative patients are shown, and their reconstruction or cosmetic problems are discussed. Since most plastic surgical dressings require scrupulous sterile technique, a list of dressings is posted in the operating room each day. These daily dressing periods provide the student with an opportunity to observe the progress of his patient and at the same time to learn the technique of many types of dressings, purposeful splinting, etc., which are explained and demonstrated. They also provide an excellent opportunity to see many types of skin
grafts: direct transfer grafts, delayed single and double pedicle flaps and tubes, etc., during the various stages of plastic reconstruction.

Each Tuesday and Thursday afternoons, an opportunity is afforded interested students to observe moulage and cast work, cosmetic restoration of color, the making of prosthetic appliances, etc. This work is done under the direction of Mr. Elon H. Clark and Mr. Orville A. Parkes, of the Department of Medical Illustration.

Dentistry. Second-year students, in the sixth quarter, are instructed in the principles of dentistry.

## Radiology

The student teaching schedule in roentgenology consists of a course in roentgen diagnosis and a course in therapeutic radiology. The first is offered during each scholastic quarter on Tuesday and Thursday of eack week. The fundamental physics of $x$-ray is discussed, with the chief emphasis being placed upon the anatomical, pathological and physiological bases for the interpretation of x-ray films. The course is conducted in seminar fashion and no formal lectures are given. The students participate in and lead discussions with the instructor serving as the moderator. An attempt is made to acquaint the student with the aids of roentgenology in diagnostic problems. The correct use of x-rays in diagnosis is stressed.

Therapeutic radiology is given one hour weekly during each quarter. At these sessions the general problem of the treatment of benign, inflammatory and malignant lesions by x-ray and radium is discussed and the accepted views of the combination of these therapeutic agents with surgery is stressed. Representative cases are demonstrated, and the fol-low-up results are particularly stressed.

A limited number of senior students are permitted to attend routine film reading sessions in the Department of Radiology. They are also instructed in the fundamentals of fluoroscopic examinations and shown the many pitfalls of the inexperienced fluoroscopist.

A number of conferences with the resident house staff is conducted throughout the year. Each alternate Monday at 8:30 to $9: 30$ A.M. a session with the ear, nose and throat staff is held, during which the roentgen and operative findings are correlated. Each Thursday from 8:30 to 9:30 A.M. a pediatric conference is held at which current cases are discussed and clinical and x-ray findings are given. On alternate Wednesdays from 5:00 to 6:00 P.M. conferences are held with the surgical and medical house staffs and all cases with significant x-rays are presented for general discussion. The neurosurgical staff meets with members of the x-ray department every other Tuesday afternoon from 4:00 to 5:00 P.M. for a discussion of all cases that have been studied by the two departments.

Each Thursday afternoon the conference is held by the members of the x-ray staff and visiting radiologists. Difficult cases are brought up for discussion and diagnosis.

## Obstetrics and Gynecology

Second-year students receive seventeen hours of instruction in the fundamentals of obstetrics and gynecology during their course in physical diagnosis in the sixth quarter. Clinics and demonstrations for junior and senior students are held on Saturdays at 10:30 A.M. during the Autumn, Winter, and Spring Quarters and on Mondays at 11:30 A.M. in the Summer Quarters. During one quarter of the junior year each group of students attends ward rounds at 8:30 A.M. on Mondays, Wednesdays, and Saturdays, preoperative conferences at 8:30 A.M. on Tuesdays and Fridays, and the out-patient clinic at 1:30 P.M. three times weekly, for eleven weeks. They also attend an endocrine clinic once a week for eleven weeks during the junior year. The students also spend part of each day on the wards. Senior students, during their surgical quarter, have ward rounds on obstetrics and gynecology on Saturdays at 8:30 A.M. Each senior student, during his senior surgical quarter, spends one week on the delivery floor.

Elective courses in the diagnosis and treatment of obstetric and gynecological conditions are offered for junior and senior students.

## Pediatrics

Each second-year student receives nine hours of instruction in elementary pediatrics during the course in physical diagnosis in the sixth quarter. Junior and senior students, during their medical quarters, have pediatric ward rounds on Saturdays, from 8:30 to 9:30 A.M. The senior students are divided into three groups, each of which spends one quarter in pediatrics. During this quarter they are assigned daily as clinical clerks on the children's ward, nursery, and pediatric out-patient clinic; attend ward rounds at 8:30 A.M. Wednesdays and Fridays and 9:30 A.M. on Mondays; are instructed in the practical nursing of infants by Miss Sherwood on Wednesdays at 9:30 A.M. ; and are taught the preparation of diets for infants and children by the Professor of Dietetics. Each student attends infant feeding clinics on Fridays during this quarter. On Thursdays at 11:30 A.M., the junior and senior students attend demonstrations at which the preclinical basis, as well as the clinical aspects, of disease are emphasized. Elective courses: senior students may assist in the treatment of pediatric patients in the syphilis clinic on Thursdays at 9:00 A.M., do research work, or assist in the pediatric ward or out-patient clinic one or more mornings per week, according to the time at their disposal.

## Legal Medicine and Toxicology

This course embraces a discussion of the relation of physicians to legal criminal procedures, jurisdiction of the coroner and medical examiner, laws governing the dead human body, personal identity of the living and the dead, the medicolegal autopsy, traumatic injuries and fractures, rape, abortion, asphyxial death, homicidal, suicidal, and industrial poisoning, alcoholism, the examination of blood, stains, fibers, and the detection of malingering. The course is open to junior and senior stu-
dents and is given in alternate years. Discussions of medicolegal problems for the house staff and senior students, and joint conferences of the medical and law students also are held.

## Preventive Medicine and Public Health

Public Health and Hygicnc. A lecture course is given in the second year to acquaint the students with general environmental sanitation including sewage disposal, water supplies, milk and food for rural and urban communities. Vital statistics, public health regulations, and various official public health organizations also are discussed. Exercises in the epidemiology of several diseases are introduced to give the student a broad view of disease and its prevention. Field Demonstrations. Visits for observation and instruction are made to state, county, and city health departments, infant and school hygiene clinics, dairies, public water supplies, sewage disposal plants, and industrial establishments. Seminars are held in which the students discuss the various problems encountered in their field experience. Preventive Medicine. A series of lectures and exercises is given during the senior year to provide students with the preventive point of view in the practice of medicine. The problems of infant and maternal hygiene, occupational diseases, the deficiency states, and the etiology, transmission, epidemiology and prevention of communicable diseases are considered. Emphasis is placed upon the relationship of the private practitioner of medicine to the public health program. A Laboratory Course given in the fourth quarter by the Department of Bacteriology consists of the identification and virulence testing of diphtheria cultures; the isolation of stool, throat, and blood organisms; the practical examination of water; Schick, Dick, and tuberculin tests: and vaccination against typhoid-paratyphoid fever and smallpox. Elective: Through the co-operation of several city and county health officers, students may spend one or more weeks in observing and assisting in the operation of these public health units. Senior students may elect one month's Fellowship in Public Health in Michigan offered by the Kellogg Foundation, if they have permission from the head of the department of the quarter concerned and make up the time afterward.

## CURRICULUM OF THE SCHOOL OF MEDICINE

The curriculum, shown below, consists of two semesters in the first year and three quarters each in the second, junior and senior years. There is no summer quarter between the first and second year, but in the two clinical years the subjects of the autumn, winter and spring terms are repeated in the summer quarter. Starting with the Summer Quarter of 1946, this accelerated schedule will be optional, and students may take the two semesters of their first year, and three quarters in each of their subsequent years, and receive their certificates in four calendar years, or if they receive permission from the Curriculum Committee, they may at the end of their second year take the clinical quarters given during the summers and receive their certificates in three and one quarter calendar years.

Every effort is made to emphasize the close relationship of preclinical and clinical instruction. Members of the clinical staff assist in the teaching of preclinical subjects and demonstrate to the students of the first two years patients whose conditions illustrate the subjects being taught. Thus, from the student's first days, he is impressed with the interdependence of all branches of the medical science. In the junior and senior years, preclinical instructors assist the clinical staff in presenting the underlying basis of disease.

The free time in this curriculum may be spent in elective work or anything else the student wishes to do. No credits are given, but opportunity is provided for each student on his own initiative to obtain additional training which he may feel to be necessary or desirable. Elective courses have been organized for small groups, or the time may be utilized in independent work (including research) in any department, clinical or preclinical. Arrangements for taking such courses or doing other work are to be made through the Curriculum Committee.

It is hoped that many students will migrate to other medical schools for one or more quarters. Those who wish to do so, or to substitute a schedule different from that listed below, must have their programs approved in advance by the Curriculum Committee, and afterwards must present evidence that they have completed work comparable to that of the curriculum during the quarters in which they were away or were following an altered schedule.

## OPTIONAL ACCELERATED SCHEDULE

## (The hours for these courses will be posted on the bulletin board.)

> FIRST YEAR

First Semester: hours
October 1, 1945 to February 9, 1946.
Anatomy (including histology and neuroanatomy) . ......................... . . 702
Second Semester:
February 18 to June 22, 1946.
*Physiology and Elementary Pharmacology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 396
$\dagger$ Biochemistry . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 279
Psychobiology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12
Free time . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
SECOND YEAR
Autumn Quarter (4th):
October 7 to December 21, 1946.
Pathology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 216
Bacteriology and Parasitology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 164
Free time . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 88
Winter Quarter (5th) :
January 6 to March 22, 1947.
Pathology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 200
Clinical microscopy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 148

Spring Quarter (6th):
April 7 to June 14, 1947.
Physical diagnosis and introduction to clinical medicine . .................. . . . 282
Advanced Pharmacology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 72
Public health and hygiene . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 48
Free time ................................................................................. . . . . 66

* Physiology will start four weeks after the beginning of the second semester, and will run to the end of the semester.
$\dagger$ Biochemistry will start at the beginning of the second semester and will end four weeks before the end of the semester.


## JUNIOR YEAR

Summer Quarter (7th) :*July 1 to September 14, 1946.Medicine (Junior)468
Autumn Quarter (8th):*October 7 to December 21, 1946.
Surgery (Junior) ..... 468
Winter Quarter (9th) :* January 6 to March 22, 1947.
Obstetrics and Gynecology (Junior) ..... 384
Neuropsychiatry ..... 84
SENIOR YEAR
Spring Quarter (10th):* April 7 to June 14, 1947.
Medicine (Senior) ..... 444
Preventive medicine ..... 24
Summer Quarter (11th) :* June 23 to September 6, 1947.
Surgery (Senior), including urology and orthopaedics ..... 336
Obstetrics ..... 132
Autumn Quarter (12th) :*
October 6 to December 20, 1947.
Pediatrics ..... 209
Surgery ..... 45
Final clinical examinations ..... 24
Neuropsychiatry ..... 45
Free time ..... 145

## SUMMARY

Total number of hours in curriculum ........................................ 5,616

* The clinical instruction is repeated each quarter in order to utilize all the clinical material and to have small groups of students. Consequently, students may vary the order of the seventh, eighth, and ninth quarters, and also the order of the tenth, eleventh, and twelfth quarters. The above schedule merely illustrates the program of one group.


## FEES AND EXPENSES

All fees for each quarter are due and payable at the beginning of each quarter, and no student will be admitted to classes until these fees have been paid at the University Treasurer's Office. A fine of $\$ 5.00$ is charged for late registration. No credit will be given for any quarter in which the tuition of $\$ 200$ has not been paid at the Treasurer's Office, whether the work has been done here or elsewhere, except that students who have been permitted by the Curriculum Committee to spend a quarter at another medical school or hospital may subtract the amount of tuition paid at this other medical school or hospital from the $\$ 200$ due here for that quarter.

It is not advisable for a student to attempt outside work to defray his expenses; the results usually are disastrous to his health and academic standing.

## Fees and Expenses

Tuition, per quarter ..... $\$ 200$
Health Fee, per quarter ..... 6.66
Athletic Fee, admitting student to all athletic contests held on the University campus, during the quarter (optional) ..... 5
Room-rent, per quarter* (estimated) ..... 50
Board, per quarter (estimated) ..... 105
Laundry, per quarter (estimated) ..... 10 to ..... 20
Books, per quarter (estimated) ..... 25 to ..... 50 ..... 8Commencement and Diploma Fees $\dagger$
National Board of Medical Examiners Fees $\dagger \$ 25$ (Part I), $\$ 20$
(Part II)
Microscope, ophthalmoscope, otoscope, and other equipment, whichare required of each student and which must conform to rigidstandards, may be obtained on a rental basis from the Univer-sity, per quarter25 to35
Estimated total expenses, per month ..... 150 to ..... 165

## ANGIER B. DUKE MEMORIAL AND OTHER LOAN FUNDS

The Angier B. Duke Memorial, Incorporated, administers through an advisory committee of the officers of the University a loan fund for students. In addition, the loan fund of the W. K. Kellogg Foundation is available for students who are not financially able to meet their expenses. Medical students, after their third quarter may apply for loans from these sources. No scholarships are awarded in the School of Medicine. The loan funds are administered in accordance with the following regulations:

1. No loan will be made to a student who violates any of the regulations of the University or who is not doing outstanding classwork.

[^82]2. Loans will be made only to students who are taking full courses of study that lead to a degree, and all loans must be arranged not later than one week after the beginning of a quarter.
3. Every applicant for a toan must present with the application such security as the President of the University may approve, and no money will be advanced before a note with approved security is in the hands of the Treasurer of the University.

# THE SCHOOL OF NURSING 

Margaret Isabel Pinkerton, R.N., B.S. Dean

## 1945-1946 <br> ANNOUNCEMENTS FOR 1946-1947

Spring Quarter begins March 25, 1946, ends June 8; Summer Quarter begins June 10, ends August 24; Fall Quarter begins October 7, ends December 21; Winter Quarter begins January 6, ends March 22.

## THE SCHOOL OF NURSING

## GENERAL INFORMATION

The School of Nursing of Duke University was established in 1931 in connection with the School of Medicine of the University and Duke Hospital through the munificent gift of the late James B. Duke.

The plan of the School is to develop the ability of the nurse to make a maximum contribution to social welfare and progress, and to live an individually satisfying life, through the medium of the service which she renders to individuals, families, and communities in caring for the sick, in prevention of disease, and in conservation of health.

## FACILITIES FOR INSTRUCTION

The facilities for instruction include the undergraduate colleges and graduate schools of the University, the School of Medicine, and Duke Hospital.

## LIBRARIES

The reference library of books and periodicals of special interest to students majoring in nursing is located in the Nurses' Home Libraries. Students may use the general libraries on the East and West campuses and the Medical School Library.

## RESIDENCES

Students are housed in the fireproof residences located near the Hospital. Rooms are adequately equipped with blankets and linen, making further provision by the student unnecessary.

## HEALTH REGULATIONS AND PHYSICAL EDUCATION

The School has general supervision of the student's health. All physical defects, such as defective vision, dental needs, etc., must be corrected before admission to the School. The student must have been immunized against typhoid fever and vaccinated against smallpox during the current year. All students are required to pass a physical examination before admission to the School of Nursing and at intervals thereafter, a final examination being given at the end of the course.

## ACTIVITIES OFFERED

Autumn Quarter (October to December) : Swimming, horseback riding. (Required for first-year students.)

## REQUIREMENTS FOR ADMISSION AND SELECTION OF MATRICULANTS

As the profession of nursing requires women with high sense of integrity and responsibility, with culture and intelligence whose predominant interest is in service to the public, the Admissions Committee of the School considers carefully all credentials of applicants before selection of matriculants is made.

All applications for admission to the School should be made to the Dean of the School of Nursing, who will furnish upon request the necessary forms which must be filed with the School before decision is made regarding the acceptability of the candidate.

A personal interview is required either at the School by appointment with a member of the faculty or with an alumna living in the vicinity of the applicant, for which arrangements will be made.

Applicants should be between eighteen and thirty years of age. Young women who are $171 / 2$ years of age may be considered for admission if they show maturity and submit other credentials which would indicate superior qualifications for nursing. Exceptions for those over thirty may be made also, if the candidate shows unusual abilities. Married students are not admitted to the School, and students are not permitted to marry while they are in the School.

Applicants must submit evidence of personal suitability for nursing in relation to their physical health, emotional stability and general qualities of personality, culture and maturity.

Emphasis in selection of matriculants is placed upon the educational and scholastic qualifications of applicants. The minimum requirement is satisfactory graduation from an accredited high school or recognized preparatory school in which the following units of study have been taken:

| English (4 years) | 4 units |
| :---: | :---: |
| Foreign Language | 2 units |
| Chemistry | 1 unit |
| Biology, Physics or | 1 unit |
| History | 1 unit |
| Mathematics | 2 units |
| Electives | 5 units |

16 units
At least one year of college work is required for admission. Chemistry and biology or zoology must be included in the college work. Classes are admitted only in October of each year.

Preference in admission, however, is given to women who have had the opportunity of advanced study and experience, provided they meet all other requirements satisfactorily. As a result of this selective process, many students have received their bachelor's degree before admission to the School of Nursing and most of them have had one or more years' study beyond high school. Many have had valuable experiences as teachers, librarians, social workers and secretaries.

Because of the many applications to the School, it is important that those who desire admission submit their credentials promptly to

Dean of the School of Nursing, Duke University School of Nursing, Durham, N. C.

## REQUEST FOR APPLICATIONS

When requesting application blanks state the number of years you have attended college and also list the subjects satisfactorily completed.

## REQUIREMENTS FOR THE B.S. IN NURSING

Upon completion of 60 semester hours of acceptable college work with an average of at least "C," a student is eligible for the B.S. in Nursing. Part of this academic requirement may be completed after the nursing course, if so desired.

| FEES AND EXPENSES |  |  |  |
| :---: | :---: | :---: | :---: |
|  | First Year | Second Year | Third Year |
| Tuition | . $\$ 100.00$ | \$100.00 | \$100.00 |
| Books | 40.00 | 10.00 | 10.00 |
| Pre-entrance tests | 5.00 |  |  |
| Publications | . 10.00 | 10.00 | 10.00 |
| Graduation |  |  | 3.00 |
| Diploma |  |  | 5.00 |
| Degree |  |  | 5.00 |
| Cap and Gown Rental |  |  | 1.25 |
| Room Key Deposit . | 1.00 |  |  |
|  | \$156.00 | \$120.00 | \$134.25 |

The fee for pre-entrance tests and health examination is payable at time testing is done. Checks should be made payable to Duke University.

No student is permitted to attend classes until she has complied with all regulations concerning registration and payment of bills for the term.

## LOAN FUND AND SCHOLARSHIP

Through the generosity of the Kellogg Foundation, loan funds sufficient to cover tuition costs are available to students who demonstrate a real need and who are qualified. There are also a limited number of tuition scholarships for exceptionally qualified students.

## READMISSION

Students who are absent for more than one month on account of illness or have leave of absence may be readmitted to the same or a succeeding class at the discretion of the Committee.

## VACATIONS

Each year is divided into four quarters of three months each. Firstyear students have vacations of two weeks at Christmas and two weeks during the summer. Senior students have vacations of two weeks; Junior students, a month.

## COURSES OF INSTRUCTION

Anatomy and Physiology. Dr. Markee, Dr. Hollinshead, Miss Poole Bacteriology.

Dr. Conant
Chemistry.
Dr. Taylor, Mrs. Atwell
Communicable Disease.
Diet Therapy.

Physicians, Miss Warren
Mrs. Elsie Martin

Ear, Nose, Throat, and Dentistry.
Dr. Atwood, Dr. Eagle, Mrs. Hampton

Eye.
First Aid.
Gynecology.
History of Nursing.
Medicine I.
Medicine II.
Nursing Arts I.
Nursing Arts II.
Nursing Arts III.
Nutrition and Cookery.

Dr. Anderson, Mrs. Hampton
Red Cross Instructor
Dr. Carter, Associates, Miss Theresa Horton
Mrs. Ativell
Physicians, Miss Warren
Physicians, Miss Warren
Miss Pinkerton, Miss Burnham, Assistants
Miss Burnham and Assistants
Miss Burnham and Assistants
Mrs. Elsie Martin
Obstetrics.
Dr. Bayard Carter, Miss Horton, Miss Lawrence
Operating Room Technique and Anesthesia.
Miss Batchelder and Dr. Martin

Orthopaedics.
Pediatrics.
Elementary Pharmacology.
Advanced Pharmacology.
Physical Education.
Elementary Psychology.
Applied Psychology.
Professional Adjustments II.
Psychiatric Nursing.
Dr. Baker, Mrs. Hampton, Miss Kaiser
Physicians, Miss Sheriwood
Miss Peole
Miss Poole
Mr. Persons
Miss Nah m
To Be Appointed
Miss Pinkerton and Specialists
To Be Appointed
Introduction to Public Health Nursing.
Miss Ruth Hax, Miss Margaret Blee
Sociology of Nursing.
Surgery I.
Miss McCracken and Lecturer
Physicians, Mrs. Hampton
Dr. Alyea, Mrs. Hampton

# THE SCHOOL OF FORESTRY 

Clarence F. Korstian, B.S.F., M.F., M.A., Ph.D. Dean

1945-1946
ANNOUNCEMENTS FOR 1946-1947

## FORESTRY IN DUKE UNIVERSITY

## GENERAL STATEMENT

Forestry in Duke University began early in 1931, when, through placing the Duke Forest under intensive management for forestry purposes, a substantial beginning was made in laying the foundation for educational work and research in forestry.

An academic-forestry curriculum, designed for students intent upon pursuing the study of forestry, particularly as a profession after graduation, was organized in Trinity College of Duke University in 1932. This four-year course of study provides only for instruction in fundamental and auxiliary subjects basic to a proper understanding of the highly specialized work in technical forestry. Duke University offers no professional degree in technical forestry available to undergraduates.

Training in technical forestry leading to the professional degrees, Master of Forestry and Doctor of Forestry, is offered in the School of Forestry, and is open to all graduates of the academic-forestry curriculum in Trinity College and to graduates of recognized scientific schools or colleges, universities, and professional schools of forestry.

Duke University is also prepared to offer, through the Graduate School of Arts and Sciences, graduate work in the more scientific aspects of forestry leading to the Master of Arts and Doctor of Philosophy degrees. This work is available to graduates of schools of forestry of recognized standing, and to college or university graduates holding the Bachelor's degree with their major work in appropriate scientific subjects. Undergraduate subjects which the college student, who does not have forestry training but who is contemplating work toward either degree in forestry, should take in preparation for this work may be illustrated as follows: at least two full years in botany, including general morphology or anatomy, the taxonomy, physiology, and ecology of plants; at least one course in zoology or general biology; courses in chemistry, physics, geology, economics, mathematics; and at least two years of French or German.

Several staff members of the Appalachian Forest Experiment Station are engaged in co-operative research projects in the Duke Forest. Specialists from this station and other prominent members of the U. S. Forest Service and representatives of forest and wood-using industries give occasional scheduled lectures at the School.

## EDUCATIONAL FACILITIES

The School of Forestry is located partly in Few Quadrangle and partly in the Biology Building along with the Departments of Botany and Zoology. The administrative offices, two classrooms, and the forest mensuration and statistical laboratory are in Few Quadrangle, while other laboratories and offices and the School Library are in the Biology Build-
ing. The Biology Building contains, in addition to classrooms, laboratories, and offices, a library, three refrigerated rooms, an incineration room, a workshop, and eight dark-rooms. The School is provided with instruments and tools for use in both field and laboratory work in silvics, silviculture, and forest mensuration. Modern surveying instruments and accessory equipment are available for work in forest surveying.

Laboratories for work in wood anatomy and properties are provided with microtechnique and photomicrographic instruments, wood-working machinery, a Henderson dry kiln, and a 50,000 -pound Olsen Universal timber-testing machine, in addition to a glue and plywood laboratory. A modern forest soils laboratory equipped for physical and chemical studies is available. In the field of seasoning and preservation of wood a com-mercial-sized, single-compartment dry kiln and a fully equipped experimental pressure treating cylinder are available for instruction and research.

Facilities are also available for advanced work in plant physiology, plant anatomy, plant taxonomy, genetics, plant ecology, plant pathology, and the several branches of zoology. Many rooms in the Biology Building are equipped with vacuum, compressed air, direct and alternating electric current, gas, and running water.

The forestry section of the Library contains a growing collection of material on forestry, soils, and closely related subjects. It includes important books and periodicals in English and in French, German, and certain other foreign languages. The Library is well provided with American material, including Federal and State documents and reports. Over 150 periodicals and serials of importance in forestry and related fields are received by subscription or exchange.

Greenhouses, connected to the Biology Building through a soil-storage and work room, provide aderfuate space for experimental work.

A nursery has been established by the University for the joint use of the Sarah P. Duke Floral Garden, the Botany Department, and the School of Forestry. The forestry section of this nursery is used mainly for the growing of planting stock for the Arboretum and trees needed for research or other special purposes.

The School sponsors occasional lectures on forestry and conservation by speakers of national reputation.

An active Forestry Club is maintained as a student organization to bring the members of the School and students in the undergraduate academic-forestry curriculum into close contact and to afford opportunities for extracurricular activities not otherwise available.

## THE DUKE FOREST

The Duke Forest, located in Durham and Orange counties, North Carolina, consists of three main units; namely, the Durham, New Hope Creek, and Hillsboro divisions. Early in the development of Duke University it was recognized that the possession of such an area offered an unusual opportunity for the development of educational work in forestry.

Situated on the lower Piedmont plateau at elevations ranging from 280 to 650 feet, and composed of second-growth shortleaf and loblolly pines, oak, gum, hickory, maple, yellow poplar, ash, and other hardwoods, the Forest is representative of the various types of timber growth found throughout the region. Over a hundred different species of trees are found within or near the Forest. The land is rolling and there is relatively little rock outcrop, swamp, or other land of low productivity for timber growing. The total area of the Forest proper, exclusive of the University campus, is over seven thousand acres.

## THE ARBORETUM

Of outstanding value in the teaching of both forestry and botany in the future is the provision for development of an arboretum. In their annual meeting on June 4, 1934, the Board of Trustees of Duke University, upon the recommendation of their Forestry Committee, voted to set aside permanently an area of over three hundred acres in the Forest to be used for arboretum purposes. The area lies adjacent to the main University campus immediately across the road from the Chapel.

Through the generosity of the late W. W. Flowers, of New York, a member of the Class of 1894 and a Trustee of the University, it has been possible to develop preliminary plans and to make a number of plantings. This is naturally a long-time project, and many years will elapse before the Arboretum will be most useful and most attractive. The University Trustees' Committee on Forestry in its report to the Board refers to the Arboretum as follows:
"The Arboretum should serve as a station for the study of trees and woody plants as individuals and in small groups in their scientific relations, economic properties, and cultural characteristics, requirements, and possibilities. It should render an economic service by acting as a research laboratory where trees and shrubs can be studied from the viewpoint of a fuller utilization of their commercial possibilities. It should render a cultural service by serving as a center where foresters, landscape architects, nurserymen, gardeners, and the general public may increase their knowledge of indigenous trees and shrubs and where they may become acquainted with the foreign species that can be grown here. Within the University the Arboretum will supply living specimens and material for several branches of botany and forestry."

The development of the Arboretum will proceed along these lines as rapidly as available funds and planting stock will permit.

## FELLOWSHIPS, SCHOLARSHIPS, AND RESEARCH ASSISTANTSHIPS IN FORESTRY

A number of fellowships, scholarships, and research assistantships are available to men who offer promise of becoming leaders in the forestry profession. These will be awarded for high character and marked scholastic ability as judged by education, experience, and personal references.

Holders of the awards will pay tuition and such additional fees as are regularly required.

The awards are of three classes with stipends and special conditions as follows:
(1) Fellowships of $\$ 400$ to $\$ 600$ each. Each recipient must have previously completed work equivalent to that required at Duke University for a Master's degree with major in forestry or in a discipline basic to forestry. He will devote his entire time to an approved program of study and research in any of the branches of forestry. He is expected to become a candidate for the degree of Doctor of Forestry or Doctor of Philosophy.
(2) Scholarships at $\$ 250$ each. Each recipient will normally devote his entire time to an approved program of study leading to the degree of Master of Forestry or Master of Arts with a major in forestry.
(3) Research assistantships of $\$ 500$ each. Each recipient will devote half-time to field, laboratory, or other work of the research program of the School of Forestry. He will be permitted to enroll for not more than 20 semester hours in a school year on a program of study, or study and research, leading to the degree of Master of Forestry, Master of Arts, Doctor of Forestry, or Doctor of Philosophy.

The following arrangements are common to all fellowships, scholarships and research assistantships in forestry:
(1) Each applicant must have received a Bachelor's degree from an acceptable professional school of forestry or must be a graduate of a recognized college or university. If an applicant is not a graduate of a school of forestry, he must have had major work in botany or soil science and in the allied basic sciences. Each applicant must show reasonably high scholarship. Preference will be given to men who have already obtained technical or professional training in forestry.
(2) It is highly desirable that each applicant state as specifically as possible the field in which he wishes to study. The definite selection of a major field of work-one that is specific in purpose and involves training both in fundamentals and in technique-is very helpful to the Committee on Awards.
(3) Application blanks for fellowships, scholarships, and research assistantships may be obtained by writing to the Dean of the School of Forestry, Duke University, Durham, North Carolina. When the blank has been filled out by the applicant, it should be returned to the above address, and an official transcript of record showing college or university credits must accompany it or be forwarded promptly. The application and transcript must be filed not later than March 1 for consideration for the following academic year. In case vacancies occur, applications submitted on a later date may be considered.

## REQUIREMENTS FOR ADMISSION TO THE SCHOOL OF FORESTRY

The following general requirements of the School of Forestry apply to candidates for the Master of Forestry degree:

Admission to the School of Forestry presupposes that the applicant
is either a graduate of a scientific school, college, or university of high standing, but without professional training in forestry; or that he is a graduate of a professional school of forestry of recognized standing. He will present not less than four years of credit of collegiate grade, with at least as many quality points as hours. ${ }^{1}$

An applicant with no professional training in forestry will present a certified transcript of his academic record showing that he has had conferred upon him a degree in arts, science, or engineering; and that he has satisfactorily completed undergraduate work in minimum amount as follows:

One year of botany, including the morphology, physiology, and identification of plants.

One year each of English and of chemistry.
One course each in physics and in the principles of economics.
Mathematics, through college algebra and trigonometry.
It is urged that an applicant without professional training in forestry present additional credits in the above subjects and in one or more of the following subjects: soils, geology, mineralogy, petrology, climatology, surveying, languages (particularly German and French), sociology, political science, philosophy, psychology, and zoology.

An applicant who is a graduate of a professional school of forestry of recognized standing will present a certified transcript of scholastic record showing the award of a degree. Before registering for the first semester of residence, such applicants will be required to select the branch or branches of forestry in which they wish to concentrate the major part of their work and to prepare their proposed programs in conference with the appropriate faculty adviser.

Students must make application for admission in advance of the opening of the school year. Those students entering without acceptable courses in plane surveying, forest surveying, and forest mensuration must take the twelve weeks of work in these subjects in the Summer Session, and are required to submit their applications prior to May 1. Students entering with advanced standing in surveying and forest mensuration should make application before September 1. Application blanks will be sent upon request made to the Dean of the School of Forestry.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF FORESTRY

The degree of Master of Forestry (M.F.) is conferred upon students who have satisfactorily completed two years of study in technical forestry and one term of twelve weeks' work in plane surveying, forest surveying, and forest mensuration in the Summer Session. In addition to the summer session work a total of not less than sixty semester hours' credit is

[^83]required for the M.F. degree, of which at least fifty-five shall be obtained in the School of Forestry. Each student must obtain at least as many quality points as semester hours' credit under the quality-point system described in footnote 1 of the preceding section.

Field studies of typical timber-harvesting, manufacturing, and other utilization operations in the Coastal Plain are conducted by the School during a two week period in the spring semester as part of the work required of students registered in Forest Products Industries (Forestry 212). Other students may be permitted or advised to take this work for which one semester hour of credit may be earned by registering for it in Forestry 212A. A similar period of field work in silviculture in the Coastal Plain is available to students, who may receive one semester hour of credit for it by registering for Forestry 265A.

No student may take less than fifteen or more than eighteen hours in any one semester without special permission of the School of Forestry Faculty. The following work will ordinarily be required of all candidates for the M.F. degree:

SUMMER SESSION
S.H.
Plane Surveying (C. E. S110) ..... 3
Forest Surveying (F. S150) ..... 5
Forest Mensuration (F. S151) ..... 4
FIRST YEAR
First Semester Second Semester S.H. S.H.

Forest Products Industries

Forest Products Industries
(F. 212)
(F. 212) ..... 3 ..... 3
Harvesting Forest Products
Harvesting Forest Products
(F. 211)
(F. 211) ..... 3 ..... 3
Forest Entomology (F. 231) Forest Pathology (F. 224) ..... 4
Sampling Methods (F. 251) Silvics (F. 264) ..... 3
Dendrology (F. 253) Electives
......3Wood Anatomy \& Properties
(F. 259) ..... 3
Forest Soils (F. 261) ..... 3
SECOND YEAR


Each candidate is required to file in the office of the Dean of the School of Forestry on or before May 1 three copies of a thesis, typewritten and bound in accordance with regulations set forth by the Faculty. The thesis shall be based upon an original study made in the field, laboratory, or library.

Work of equivalent grade done in residence at recognized schools of forestry may, with the approval of the Faculty, be accepted as credit
toward the M.F. degree. A minimum of one year's residence is required at Duke University. Students who have had satisfactory undergraduate training in forestry may, with the approval of the Faculty, elect to devote the major portion of their time to research under the supervision of one or more members of the Faculty and prepare a more comprehensive thesis than is required of students entering the School without previous work in forestry. Students in the School of Forestry may take in allied departments of the University as electives certain courses approved by the Faculty.

## REQUIREMENTS FOR THE DEGREE OF DOCTOR OF FORESTRY

## THE DEGREE

The degree of Doctor of Forestry is a professional and research degree, involving both advanced study and research. It is based upon evidence of high attainments in a special branch of forestry knowledge or in the broad field of forestry, including the production of a thesis which is the result of original work and which is a distinct contribution to knowledge in the field of forestry.

A student who plans to enter upon a program of work leading to the degree of Doctor of Forestry should consult or enter into correspondence with the Dean of the School of Forestry. He will then be advised as to the possibility of obtaining the necessary instruction and supervision of work in the fields desired.

## RESIDENCE

The normal period of resident graduate study, following satisfaction of the general requirements for admission to the Duke School of Forestry, is a minimum of two academic years after the student has obtained the graduate professional degree of Master of Forestry, or its equivalent. At least one of these two years of graduate study must be spent in actual residence at Duke University. With the approval of the Faculty of the School of Forestry work of equal grade done in residence at another college or university, or at a research station or institute not connected with a college or university, may be accepted toward a Doctor of Forestry degree. Only in connection with the preparation of the thesis will work be accepted that has been done elsewhere than in residence at a college, university, research station, or institute. A student whose undergraduate work is insufficient in amount or unsatisfactory in character may be required to spend additional time in preliminary courses essential as a basis for the graduate work he proposes to undertake.

Students whose research is concerned with the study of trees and forest stands in the Duke Forest during the growing season may find it necessary to be at the University during the summer.

Credit for one year of work done in regular terms of the Summer Session at Duke University may be given with the approval of the School of Forestry Faculty. Except in unusual cases, graduate work of frag-
mentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence.

## APPLICATION FOR CANDIDACY

No student will be admitted as a candidate for the degree of Doctor of Forestry until he has obtained the professional graduate degree of Master of Forestry or its equivalent, either at Duke University or at a professional school of forestry of recognized standing. A student desiring to become a candidate for the Doctor of Forestry degree is ordinarily required to file with the Dean of the School of Forestry, at the beginning of his graduate work toward this degree, a formal application indicating in which field and under what professor he proposes to carry on research. A committee of the Faculty will then be appointed to supervise the student's work, with the professor in charge of his research as chairman. If and when the committee finds that the preliminary requirements of the major field have been satisfied, the chairman of the committee will report the fact in writing to the Dean of the School of Forestry. In the case of students who come to Duke University for only the last year of graduate work, and in special cases approved by the School of Forestry Faculty, the application for recognition as a candidate for the Doctor of Forestry degree may be filed later than provided above, but not later than October 15 of the academic year in which it is desired that the degree be conferred.

## PROGRAM OF STUDY

The program of study of a candidate for the Doctor of Forestry degree will be arranged after consultation with the committee provided for in the preceding section and is subject to the approval of the Dean and Faculty of the School of Forestry. The student must select a major field and one or two minor related fields. Both major and minor may be selected in different branches of forestry or the minor may be taken in a related field in some other school or department of Duke University.

## FOREIGN LANGUAGES

A reading knowledge of two foreign languages is required. One language shall be either French or German, and the other optional to fit the requirements of the student's problem. No student may come up for his preliminary examination before having satisfied the language requirements for the Doctor's degree. Foreign language examinations are conducted by the appropriate language department or, in special cases, by a qualified member of the Faculty of Duke University.

## PRELIMINARY EXAMINATION

Toward the end of the first full year of graduate work for the Doctor of Forestry degree (or in special cases early in the second year), a preliminary examination of each candidate will ordinarily be held covering the general field of his studies. This examination will be conducted by
the committee in charge of the student's work and will be written. A student who passes the examination will be recognized as a candidate for the Doctor of Forestry degree. A student's major and minor subjects will ordinarily be included in this preliminary examination.

If a student fails on his first examination, he may make a second attempt after six months upon recommendation of his committee and the approval of the Dean of the School of Forestry. Two failures on this examination make the student ineligible to continue work toward the Doctor of Forestry degree at Duke University.

## THESIS

The thesis for the Doctor of Forestry degree must be a contribution to knowledge. The subject of the thesis must be filed with the Dean of the School of Forestry on or before October 15 of the academic year in which the candidate desires to take the final examination for his degree. The subject must receive the written approval of the professor under whom the thesis is being written and of the Dean of the School of Forestry. The thesis must be completed to the satisfaction of the major professor. Four typewritten copies in approved form must be deposited with the Dean of the School of Forestry on or before April 15 if the student desires to be examined on the thesis in the same academic year. The title page must be approved by the Dean of the School of Forestry. Two of the copies, the original and a carbon copy, are placed in the School of Forestry library, one copy goes to the major adviser, and one is returned to the student.

The candidate's thesis must be published either in its original form or in a modified form approved by the Dean of the School of Forestry and the committee in charge of the candidate's work. In its published form the title page should include this statement: "A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Forestry in the School of Forestry of Duke University." Ten copies of the published thesis should be deposited in the office of the Dean of the School of Forestry within a reasonable time after publication. The degree will not be conferred until publication of the thesis, in approved form, within three years has been guaranteed in a way satisfactory to the Dean of the School of Forestry and the professor under whom the thesis was written.

## FINAL EXAMINATION

The final examination will be on the thesis and on related subject matter and will be oral. Approximately one year must elapse between the date of the preliminary examination and the final examination, except in special cases approved by the School of Forestry Faculty. Two failures on this examination make a student ineligible to continue work toward the Doctor of Forestry degree at Duke University. The second examination may be given only upon the recommendation of the professor in charge of the thesis and the approval of the Dean of the School of Forestry.

GRADING
Members of the Faculty are expected to report grades of graduate students to the School of Forestry Office not later than February 15 for the first semester and not later than June 15 for the second semester on the cards provided for that purpose. An average grade of " B " or better will be required for all work, beyond that for the degree of Master of Forestry, that is to be credited toward the Doctor of Forestry degree. A mark of "Incomplete" may be given when a student has failed, for an acceptable reason, to complete some portion of the required work in which his standing is generally satisfactory. Unless a report is made within one year that the work has been satisfactorily completed, all credit will be lost.

## FORESTRY IN THE GRADUATE SCHOOL

Graduate work toward the Master of Arts and Doctor of Philosophy degrees in the more scientific branches of forestry is available to adequately prepared students at Duke University. This work is given through the Division of Forestry of the Graduate School of Arts and Sciences by certain members of the School of Forestry Faculty.

The following special conditions will influence the acceptance of students for graduate study in forestry: The student must have received a degree from a professional school of forestry of recognized standing or from an approved college or university. Graduates of professional schools of forestry must also have had adequate training in liberal arts and sciences, approximating 86 semester hours, before being admitted to candidacy for the Master of Arts or Doctor of Philosophy degree. College graduates who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology, may pursue graduate study and research only in the specialized fields for which their previous work has qualified them.

The Forestry Staff will determine whether a student is qualified to pursue graduate study in any of the special fields of forestry in which work is available.

The Master of Arts and Doctor of Philosophy degrees are attained through scientific work rather than technical or professional training in forestry. Work for these degrees may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, forest entomology, silvics, forest soils, forest mensuration, forest management, and forest economics, except that a major cannot be taken in forest management. A student upon registration chooses a field of study which may lie in two or more departments. The members of the Graduate School Faculty best qualified in that field are named as the student's advisory committee, regardless of the department of which they are members. This committee will advise the student in the planning and conduct of his work and will evaluate it when completed.

A reading knowledge of French and German must be acquired early in the course of graduate study in forestry because much of the forestry literature of the world is written in or has summaries in these languages. For the Ph.D. degree the language requirement must be met before the preliminary examination is taken and usually before the preparation of the thesis is begun.

The length of time required for a student to obtain the Master of Arts and Doctor of Philosophy degrees in forestry is determined by the character of his previous work and by the quality of his work in the Graduate School. Upon the recommendation of the Forestry Staff and with the approval of the Council on Graduate Instruction, work of equal grade done in residence at another college or university, or at a research
station or institute not connected with a college or university, may be accepted toward a Ph.D. degree, but at least the last year of the first two years of graduate study must be spent in actual residence at Duke University. Only in connection with the preparation of the thesis will work be accepted that has been done elsewhere than in residence at a college, university, or research station.

Students whose research is concerned with the study of trees and forest stands in the Duke Forest during the growing season may find it necessary to be at the University during the summer.

The field of study may include advanced work in allied subjects as well as advanced work in forestry. The student should have covered, however, most of the basic subjects prior to entering the Graduate School. The required advanced work will depend upon the student's previous training and the special field of study selected. Before beginning his work a student must obtain approval of his proposed program of study, including the plans for the research for his thesis. Courses of study must be correlated with each other and with the thesis research.

For further information on requirements for admission to the Graduate School of Arts and Sciences and on the general requirements for the Master of Arts and Doctor of Philosophy degrees reference should be made to the Bulletin of the Graduate School of Arts and Sciences.

## COURSES AND SUBJECTS OF INSTRUCTION

This is a condensed description of courses. For a full description, see Bulletin of the School of Forestry.

IN THE SUMMER SESSION
C.E. S110. Plane Surveying.-3 s.h.

Professors Bird and W. H. Hall, and Assistant
[Not offered summer 1946]
Professor Williams
S150. Forest Surveying.-Prerequisites: Civil Engineering S110, plane surveying, or equivalent. 5 s.h.

Professor Maughan
[Not offered summer 1946]
S151. Forest Mensuration.-4 s.h. Professor Schumacher FOR SENIORS AND GRADUATES
211. Harvesting Forest Products.-3 s.h.

Professor Wackerman
212. Forest Products Industries.-3 s.h. Professor Wackerman
213. Seasoning and Preservation of Wood.-3 s.h.

Professor Wackerman
214. Marketing Forest Products.-Prerequisites: Forestry 211 and 212, or equivalents. 3 s.h.

Professor Wackerman
224. Forest Pathology.-Prerequisites: Botany 1 and 2, and Forestry 253, or equivalents. 4 s.h.
231. Forest Entomology.-3 s.h.
236. Forest Game Management.-3 s.h. Professor Wolf
251. Sampling Methods in Forestry.-Prerequisite: Forestry S151. 2 s.h.

Professor Schumacher
252. Forest Mensuration.-Prerequisite : Forestry 251. 2 s.h.

Professor Schumacher
253. Dendrology.-Prerequisite: one year of botany. 3 s.h.

Professor Harrar
256. Wood Pulp and Pulp Products.-Prerequisites: Forestry 212 and 259, or equivalents. 3 s.h.

Professor Harrar
257. Design of Forestry Experiments and Analysis of Data.-5 s.h.

Professor Schumacher
259. Wood Anatomy and Properties.-Prerequisites: one year of botany and Chemistry 1 and 2, or equivalents. 3 s.h. Professor Harrar
260. Timber Mechanics.-Prerequisites: Physics 1 and Forestry 259, or equivalents. 3 s.h.

Professor Harrar
261. Forest Soils.-Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents; physical geology and analytical chemistry are also desirable. 3 s.h.

Associate Professor Coile
264. Silvics.-Desirable prerequisites: plant physiology, plant ecology, and Forestry 253 and 261, or equivalents. 3 s.h.

Professor Korstian
265. Theory and Practice of Silviculture.-Prerequisite: Forestry 264 or equivalent. 5 s.h.
266. Forest Seeding and Planting.-2 s.h.
273. Forest Protection.-2 s.h.

Professor Korstian

Associate Professor Thomson
276. Forestry Policy.-2 s.h.

Associate Professor Thomson
279. Economics of Forestry.-Prerequisite: at least one course in the principles of economics. 3 s.h. Associate Professor Thomson
281. Forest Management.-Prerequisites: Forestry S150, S151, and 251, or equivalents. $4 \mathrm{~s} . \mathrm{h}$.

Professor Maughan
282. Forest Valuation.-Prerequisite: Forestry 281 or equivalent. 3 s.h.

Professor Maughan
292. Seminar.-1 s.h.

The Staff
211 A to 282 A. Special Studies in Forestry.-Credits to be arranged.
The Staff

## FOR GRADUATES

301-302. Advanced Studies in Forestry.-Credits to be arranged.
a. Silvics.-Prerequisites: Forestry 253, 261, and 264, or equivalents.

Professor Korstian
b. Forest Soils.-Prerequisite : Forestry 261 or equivalent.

Associate Professor Coile
c. Silviculture.-Prerequisite : Forestry 265 or equivalent.

Professor Korstian
d. Forest Management.-Prerequisite : Forestry 281 or equivalent.

Professor Maughan
e. Forest Economics.-Prerequisite : Forestry 279 or equivalent.

Associate Professor Thomson
f. Wood Anatomy and Properties.-Prerequisites: Forestry 259 and 260, or equivalents.

Professor Harrar
g. Forest Mensuration.-Prerequisites: Forestry S151, 251, and 252, or equivalents. Professor Schumacher
h. Forest Entomology.-Prerequisite: Forestry 231 or equivalent.

Professor Beal
i. Forest Utilization.-Prerequisites : Forestry 211 and 212, or equivalents. Professor Wackerman
j. Dendrology.-Prerequisite : Forestry 253 or equivalent.

Professor Harrar
311. Advanced Forest Utilization.-Prerequisite: Forestry 211 or equivalent. 2 s.h. Professor Wackerman

323-324. Advanced Forest Pathology.-Prerequisites: plant physiology and forest pathology. Credits to be arranged.

Professor Wolf
351-352. Advanced Physiology of Forest Trees.-Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged.

Professor Kramer
354. Forest Soil Fertility.-Prerequisites: Forestry 251 and 261, and plant physiology, or equivalents; bacteriology and analytical and organic chemistry are desirable. 3 s.h.

Associate Professor Coile
356. Economic Forces in Forestry.-Prerequisites: Forestry 279 and 282, or equivalents; courses in economic theory are desirable. 2 s.h.

Associate Professor Thomson
357-358. Research in Forestry.-Credits to be arranged.
The Staff

## FEES AND EXPENSES

The following tables show the general fees and charges collected from all students and the special fees collected from those taking laboratory courses. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

## general fees

Matriculation, per semester ..... \$ 25.00
Tuition, per semester ..... 150.00
Room rent.
Athletic Fee, admitting students to all athletic contests held on the University grounds, per semester (optional) ..... 5.00
Damage Fee, payable annually at the time of first registration ..... 1.00
Medical Fee, per semester ..... 10.00
Library Fee, per semester ..... 5.00
Commencement Fee, payable once by graduate students in the last semester before a degree is conferred ..... 3.00
Diploma Fee, payable by candidates for degrees, at the beginning of the second semester, refunded if the diploma is not awarded ..... 5.00

## SPECIAL FEES

Graduate students in the sciences are required to pay the special laboratory fees for courses as fixed by the various departments. An administrative fee is charged in connection with special research in the summer under direction of a member of the Faculty. Special laboratory and materials fees in forestry are as follows:

Forestry 224, 253, 359, 260, 264, 301a, 302a, and 357a, and 358a $\ldots \ldots \ldots \ldots$. Forestry 261, 351 -352, 354, 301b, 301f, 302b, 302f, 357b, 357f, 358b, and 358 f
$\$ 2.50$ to $\$ 5.00$

## TRANSCRIPTS

A student desiring to transfer from Duke University to another institution is entitled to one transcript of his record. A charge of one dollar is made for each additional copy.

## PAYMENTS TO FELLOWS AND SCHOLARS

Payments by the University of stipends to fellows, research assistants, and scholars are made in four installments, on November 25, January 25, March 25, and May 25. Fellows and scholars are required to pay the regular tuition fee and such additional fees as are ordinarily required of graduate students.

# THE SUMMER SESSION 

Holland Holton, A.B., j.D.<br>Director

1946
First Term: June 27 to August 8
Extended Term: August 9-29

## FACULTY

(Practically all the courses are offered by the regular instructional staff of the University. See bulletins on "Undergraduate Instruction" and on the "Graduate School of Arts and Sciences.")

VISITING MEMBERS OF THE FACULTY OFFERING GRADUATE COURSES
Baker, H. Leigh; A.B., Baker University; B.S., Kansas Agricultural College; A.M., Chicago; Ph.D., Yale; Education (Kansas State College).

Castellano, Juan Rodríguez; B.A., Instituto Cardinal Cisneros, Madrid; Licenciado en Filosofía y Letras, Doctor en Filosofía, University of Madrid; Spanish (Vanderbilt University).
Goldthorpe, J. Harold; A.B., Hamline University; A.M., Ph.D., University of Minnesota; Education (Research Staff, American Council on Education).

Gwynn, John Minor; A.B., A.M., University of North Carolina; Ph.D., Yale; Education (University of North Carolina).
Highsmith, John Henry; A.B., A.M., Duke; Columbia, 1904-06; LL.D., Catawba College; D.Ed., Wake Forest College; Public School Administration (Director of Instructional Service, North Carolina State Department of Public Instruction).

Hillman, James Elgan; B.Ped., Berea College; B.S., A.M., Ph.D., George Peabody College; Education (Director of Professional Service, North Carolina State Department of Public Instruction).
Humm, Harold Judson ; B.S., University of Miami ; A.M., Duke; Duke, 194345; Marine Biology (Resident Director at Marine Station at Beaufort).
Porter, Willis Putnam; A.B., A.M., Ph.D., University of Iowa; Education (New York State Teachers College, Oneonta).

Russell, Harry J.; A.B., Brigham Young University; A.M., Ph.D., Ohio State University ; Spanish (Miami University).
Smith, Henry Nash; A.B., Southern Methodist University; A.M., Ph.D., Harvard; American Literature (University of Texas).

Wallin, John Edward Wallace; A.B., Augustana College; A.M., Ph.D., Yale; Educational Psychology (Director of Special Education and Mental Hygiene, Delaware State Department of Public Instruction).
Wilson, Logan ; A.B., Texas; A.M., Ph.D., Harvard; Sociology (H. Sophie Newcomb College, Tulane University).

## DUKE UNIVERSITY SUMMER SESSION

In 1945 there was a total registration of 904 in the Duke University Summer Session, excluding military and naval enrollees of Trinity College and the Engineering College and excluding also the enrollments of the Scliools of Medicine and Nursing and of Law. Of these registrations, 700 were enrolled the first term, and 204 the second term. There were 397 graduate students the first term and 137 the second. The total enrollment for the summer was drawn from thirty-four states, as well as the District of Columbia, Hawaii, Canada, Cuba, and Norway. The rargest enrollments were from North Carolina, Pennsylvania, South Carolina, Florida, West Virginia, Georgia, Virginia, Ohio, and New York in the order named.

## SCOPE OF WORK

Work is offered with the needs of the following classes of students in mind:

1. Candidates for the Master of Arts (A.M.) and Master of Education (M.Ed.) degrees, particularly teachers, supervisors, and administrators in the public schools who desire to complete degree requirements in a series of summers. (These students should direct their applications to Dr. Calvin B. Hoover, Dean of the Graduate School, Duke University, and have their colleges send transcript of their previous work to him.)
2. Undergraduates already enrolled in the University who are trying to accelerate their graduation. (These students should register for the summer with the same dean with whom they register in the regular term. On account of crowded conditions in 1946, undergraduates from other colleges and universities cannot be accepted. High-school graduates other than veterans of the armed services cannot be accepted for the summer session, since the acceptance of all reccut high-school graduates is deferred until the term beginning in September.)
3. Students, graduates and undergraduates, desiring to enter under the GI Bill of Rights in the summer and continue into the fall term of the University. (These students should address Mr. J. A. McLean, 209 Administration Building, Duke University, for information as to their veterans' rights. If graduate students, they should address application and credentials to Dean Hoover as above; if undergraduates, they should address Mr. Herbert J. Herring, Dean of Trinity College, Duke Station, Durham. Undergraduate veterans who are women should address Mrs. Ruth S. Smith, Associate Dean, Woman's College of Duke University, Durham.)
4. Graduate students under the GI Bill of Rights who wish to begin work this summer toward the completion of a Master's degree within a series of summers. (These should address application and credentials to Dean Hoover.)

## CREDITS

Instead of the traditional one-hour courses for six weeks that compel the student to divide his time among three separate classes, the work of the Summer Session is divided into units of three semester hours, each class meeting for eighty-five minutes daily, five days per week for a period of six weeks. No student is permitted to obtain credit for more than two such courses, and no instructor teaches more than two. This means that instructor and student alike are limited to two preparations daily instead of three. The Summer Session also encourages students to take both their courses in one department. Undergraduates particularly are encouraged to take complete units of work within six weeks-that is, six semester hours of freshman English, or of second-year Spanish, or of United States History, etc. There is no exception to the rule that the University allows no credit for six weeks beyond six semester hours.

Professional credits toward teachers' certificates are granted by the various state boards of education, each in accordance with its own carefully planned rules. Teachers should consult the rules laid down by their State Board of Education before enrolling for certification credit. Any student, however, whose work is of such quality as to deny him credit toward a degree, fails to receive "professional" credit.

College credits are offered as follows: A course meeting one hour daily for six weeks counts for two semester hours of credit, and a course meeting eighty-five minutes daily for six weeks counts for three semester hours of credit. The University will not accept credit beyond six semester hours earned in one term toward the Bachelor's degree. Graduate students are not under any circumstances permitted to enroll for more than six semester hours in a summer term of six weeks. They forfeit graduate credit by undertaking more than six semester hours of work, even though part of the work may carry undergraduate credit only.

The nature of the credit allowed for each course is indicated by the number of the course. Courses numbered 1-49 are primarily for Freshmen, or Freshmen and Sophomores; courses numbered 50-99 are ordinarily for Sophomores, or Sophomores and Juniors; courses numbered 100-199 are for Juniors and Seniors; courses numbered from 200-299 are for Seniors and graduates; and courses numbered from 300 up are for graduate students only and are of very limited enrollment. Courses numbered from 200 up are usually limited in enrollment to approximately twenty-five students, and during the summer consist almost entirely of graduate students. Graduate seminars are limited to fifteen students or fewer.

## ADMISSION

1. Former students of the Summer Session who have already been admitted by the Graduate School or by one of the Undergraduate Colleges should send regular application blank to the Director of the Summer Session before or at the time they send their room rent to the Housing Bureau. He is authorized to accept such students, make tentative reser-
vations of the courses they request, and file room admission card with the Housing Bureau.
2. The graduate students now enrolled in Duke University will also apply directly to the Director of Summer Session and follow the same procedure as outlined for former Summer Session students. If they can get from the Director of Graduate Studies in their department advance approval of the courses they request on their Summer Session application blank, it is wise to do so; and the Summer Session will keep a record of this fact for registration day.
3. All prospective graduate students who have not attended Duke Summer Session-teachers, veterans, or others-should apply directly to Dr . Calvin B. Hoover, Dean of Graduate School, Duke University, for graduate school application blank and should have all colleges and universities they have attended send complete transcripts of their undergraduate and previous graduate work. When he has accepted their applications, he will authorize the Housing Bureau to make room assignment (when room rent has been paid) and will send summer school application blank on which student can make tentative reservation of courses with the Director of the Summer Session.
4. Undergraduates now enrolled in the University (or previously enrolled and now returning) should obtain Summer Session application blank from the office of the appropriate dean (Mr. Herring or Mrs. Smith) and have the dean approve their courses (or approve their applications subject to later arrangement of courses) and send student admission card to the Housing Bureau, which will make general room reservation upon payment of room rent.
5. All prospective undergraduate students planning to enter the Summer Session-whether veterans or not-and to continue into the fall semester should apply to Mr. Herbert J. Herring, Dean of Trinity College, Duke Station, Durham, N. C., for admission to college and for Summer Session application blank, which should be returned to him in order that the same procedure as indicated in paragraph four may be followed.
6. Teachers and administrators in the public schools who do not plan to work toward a graduate degree but wish for certification purposes graduate courses which they are qualified to enter may apply directly to the Director of the Summer Session. In their case the procedure indicated in paragraph one above will be followed. Since each of such cases is handled on its individual merits and only a limited number can be accepted, it is important that application be made very promptly.

In all cases transcripts and applications should be in the hand of the appropriate dean at least fifteen days before the opening of the term in which the student desires to enroll. The Summer Session reserves the right to reject an application or cancel any registration without assignment of reason.

CALENDAR AND REGISTRATION
The main term of Summer Session will open June 27 and close August 8. An extended term of three weeks will open August 9 and close

August 29. All Mondays except July 1, August 5, and August 26 are holidays. July 4 will be observed as Independence Day.

June 27 is registration day. All students should be present some time ketween 9:00 A.M. and 12:30 P.M. or 2:00 and 5:00 P.M. to submit their credentials for admission, select courses, and make arrangements concerning board and lodging, for either six or nine weeks according to their plans. Students arriving after 5:00 P.M. Thursday will register the next morning at 8:30. Regular classes will begin Friday morning at 8:00. Students will find schedule posted on the bulletin board prior to registration.

For the extended term, Thursday, August 8, 9:00 A.M. and 2:00 P.M., is registration day; but students who wait to register at this time instead of registering in full June 27 may find themselves crowded out of certain courses.

All graduate students seeking credit to be applied toward an advanced degree at Duke University or elsewhere not only must file applications and transcripts with the Graduate School of Arts and Sciences at the time of their first registration, but they are required to register in the Graduate School at the beginning of each term of their residence at Duke University. This registration is in addition to any advance registration in the Summer Session Office. When reporting for registration in the Graduate School, students should bring with them course cards endorsed by the Director of Graduate Studies in their major department. Any one registering in the Graduate School after the close of the Summer Session registration period will be charged a late registration fee of five dollars.

## EXAMINATIONS

The last two days of each term of six weeks are devoted to examinations. The University has no provision for giving examinations in absentia, but students absent from examination for valid reason are permitted a liberal extension of time in which to return to the University for completion of credit.

## GRADUATE DEGREES

Detailed information regarding the requirements for graduate degrees may be obtained from the Bulletin of the Summer Session.

## THESIS WRITING IN SUMMER SESSION

Since Duke University grants no Master of Arts degree except upon completion of a satisfactory thesis, every candidate for that degree who expects to complete his work in the Summer Session should as soon as possible after completing his first term of residence choose a field in which he desires to write a thesis and confer with some instructor offering graduate courses in that field. The following points should be kept clearly in mind when arrangements are made for thesis supervision:

1. The thesis subject, which must be approved by the instructor who andertakes supervision and by the Director of Graduate Studies of the
student's major department, is filed in the Graduate School Office on the blank regularly provided for that purpose. If the instructor believes that a topic proposed by a student is unsuitable, or that the student is not prepared to develop it, or that the instructor is not prepared to supervise it, his decision is final.
2. A student may enroll for six semester hours of residence credit towards a thesis or for less, in one term of six weeks. If he enrolls for only three semester hours he may enroll also for a course of three semester hours, but he cannot enroll for a total of more than six semester hours of credit, including residence toward his thesis. Completion of six semester hours of residence toward his thesis does not guarantee the satisfactory completion of the thesis, which must be acceptable to the instructor supervising it and to a committee representing the Council on Graduate Instruction. Students who do not complete their theses the first term they register for supervision have the privilege of registering a second term upon payment of regular dues, but are not required to do so. Since the numbers permitted to enroll in thesis seminars are strictly limited, such students are not permitted to register for a third term of supervision.
3. A student may either enroll in a specifically designated "thesis" course or, if his preparation meets the approval of the instructor in charge, attach himself to some regularly offered course in his field of study and report periodically to the instructor offering the course.
4. A student enrolling for thesis residence credit in regular course fays the same fees as other students during the summer of residence. At the time of graduation he pays the same diploma and commencement fees as other students and a thesis supervision fee of $\$ 25$.*
5. Students enrolling for thesis supervision during the Summer Session are expected to complete their theses largely during the summer of enrollment or some subsequent summer term. The instructor with whom they enroll is not under obligation to give active supervision during the academic year, although instructors are willing to give a reasonable amount of attention to theses practically completed. Similarly, instructors in Duke University who are not teaching in the Summer Session are not expected to undertake the supervision of theses written by summer school students.
6. Students enrolled for thesis supervision in the first summer term who expect to receive their thesis examination during that term should submit the bound copies of their theses to the Graduate School Office at least ten days before the end of the term. They may then be distributed by the examining committee. Failure to complete the thesis by that time may require deferment of the examination until the following term, because of congestion of examinations set for the close of a term. Those who work on their theses during the second summer term must complete their theses and submit the bound copies to the Graduate Office at least ten days before the conclusion of the term if they wish to receive their

[^84]diplomas in September. Students who fail to complete their theses by the conclusion of the second term must plan to take the final examination either in the following summer or in the following academic year. It is the policy of the University not to give examinations to candidates for the advanced degrees during the time between the Summer Session and the academic year.
7. Students of the academic year who do not complete theses begun prior to the Summer Session are not accepted for Summer Session enrollment unless their subjects are in the field of some thesis seminar or other course offered by an instructor who recommends that such students be assigned to his supervision during the summer. Instructors who are employed for full time by the Summer Session are specifically requested not to carry over into the summer thesis students whose subjects are not properly a part of work such instructors are offering in the Summer Session.

## FEES AND EXPENSES

Teachers in active full-time service in schools and colleges are exempt from tuition fees for as many as four terms of six weeks in a period of six years. After their fourth term they pay regular tuition charges. All cther students are charged a tuition fee of $\$ 8.00$ for each college credit hour, or $\$ 4.00$ for each semester hour, maximum tuition being $\$ 24.00$ for six weeks, or $\$ 32.00$ for courses running eight weeks. All students, teachers included, pay a registration fee of $\$ 20.00$ per term. Students in the sciences pay the laboratory fees required in regular term, and students completing degrees pay the regular commencement charges (\$8.00) at the time of receiving their degrees, besides the thesis supervision or M.Ed. examination fee of $\$ 25.00$ required of persons completing Master's degrees.

Major expenses are estimated as follows for six weeks:

| Registration | 20.00 |
| :---: | :---: |
| Room-rent | 18.50 |
| Board | 50.00 |
| Total major expenses to teachers | \$88.5 |
| Tuition required of other students | 24.0 |

In the men's dormitories, as has been stated, the charge for rooms is one dollar less, making the total major expenses for occupants $\$ 87.50$. To these totals should be added about $\$ 7.00$ for books, probably $\$ 3.00$ for miscellaneous expenditures, and laboratory fees for any science course the student may elect.

Fees and expenses for the extended term beginning August 9 are exactly half as much as those estimated for six weeks.

## APPOINTMENTS BUREAU

A Teachers' Appointments Bureau is maintained in Room 113, Administration Building, West Campus, for the benefit of teachers desiring a change of position. There is no charge for this service.

## "SCHOOL OF SPANISH STUDIES"

The "School of Spanish Studies" that the University has operated the past five summers will be suspended for 1946 because of closing the East Campus for repairs accumulated during the war. Work in Spanish, however, both graduate and undergraduate will be offered for all interested students. It is planned in the summer of 1947 to resume the distinctive features of the Spanish School. The Southgate Building on East Campus with separate dining room and other facilities for a segregated social program will probably be the regular home of the "School."

## INSTITUTE FOR TEACHERS OF SECONDARY MATHEMATICS AUGUST 8-17

The Institute for Teachers of Secondary Mathematics will hold its annual summer session from August 8-17. There will be morning, afternoon, and evening meetings each day during the Institute. The Summer Session is providing special lectures to emphasize the better teaching of mathematics and phases of application especially interesting to students at the present time. Registration will be $\$ 3.00$. Those who desire can get room and board in the University at the rate of $\$ 2.00$ per day with two in a room, and $\$ 2.50$ per day for a single room. A complete program will be sent upon request after April 20. For further information, write the Director of the Summer Session or Professor W. W. Rankin, Director of the Mathematics Institute, College Station.

## COURSES OF INSTRUCTION

This is a condensed description of courses. For a full description, see Bulletin of the Summer Session.

## EXPLANATIONS AND ABBREVIATIONS

Classes meet daily five times per week for six weeks unless otherwise indicated. Classes that meet for sixty-minute periods are indicated as carrying two semester hours of credit. Classes meeting eighty-five-minute periods daily count for three semester hours except where credits are stated otherwise. Courses are arranged alphabetically by departments. The course numbers are the same numbers used in describing courses in the regular term, with the letter "S" preceding ; for example, English S1 would correspond to English 1 of the the regular term.
N.B.-Different State Departments of Education grant professional credit for various courses in accordance with their own carefully defined rules. Every student should inquire carefully at or before registration as to what professional credit is allowed for each course in his state.

## BOTANY

PROFESSOR HUGO L. BLOMQUIST, CHAIRMAN-203 BIOLOGY BUILDING; PROFESSOR frederick a. wolfe, director of graduate studies- 315 biology building
S2. General Botany.-4 s.h.
S160. Marine Botany.-3 s.h.
Mr. Нumm
S211. Structure and Classification of Algae.-6 s.h.
Mr. Blomquist, Mr. Humm
S225. Special Problems.
Mr. Blomquist, Mr. Humm
(Write for special announcement of problem and research courses offered at Beaufort.)

## CHEMISTRY

PROFESSOR PAUL M. GROSS, CHAIRMAN-219 CHEMISTRY BUILDING
S2. General Inorganic Chemistry.-4 s.h.
S61. Qualitative Analysis.-4 s.h.
S151. Organic Chemistry.-4 s.h.
S152. Organic Chemistry.-4 s.h.

## ECONOMICS

PROFESSOR CALVIN B. HOOVER, CHAIRMAN-103 ADMINISTRATION BUILDING; PROFESSOR JOSEPH J. SPENGLER, DIRECTOR OF GRADUATE STUDIES105 DIVINITY SCHOOL

S51. Principles of Economics.-3 s.h.
S52. Principles of Economics.-3 s.h.
S57-S58. Principles of Accounting.-6 s.h.

S105. Industrial Management.-3 s.h.
S138. Business Statistics.-3 s.h.
S143. Corporation Finance.-3 s.h.
S153. Money, Credit, and Banking.-3 s.h.
S171-172. Advanced Accounting.-6 s.h.
S181. Business Law: Contracts, etc.-3 s.h.
S182. Business Law: Partnerships, etc. -3 s.h.
S236. Public Finance.-3 s.h.
S265. International Trade and Finance.-3 s.h.

Mr. Welfling
Mr. Allen

## EDUCATION

PROFESSOR HOLLAND HOLTON, CHAIRMAN-2A WEST DUKE bUILDING; PROFESSOR WILLIAM A. BROWNELL, DIRECTOR OF GRADUATE STUDIES-

1c west duke building
PUBLIC SCHOOL ADMINISTRATION (GRADUATE COURSES)
(Master's candidates in this division elect their minor work in Political Science, Economics, or Sociology. Candidates for the Master of Education must take fifteen semester hours of work from the courses specifically listed or accepted under this division.)

S234. Secondary School Organization and Administration.-3 s.h.
Mr. Highsmith
S323. Public School Finance.-3 s.h.
Mr. Proctor
S343. State and County School Administration.-3 s.h.
Mr. Proctor
S363. City School Organization and Administration.-3 s.h. Mr. Proctor PUBLIC SCHOOL SUPERVISION (GRADUATE COURSES)
(Master's candidates in this division elect their minor work in Psychology or an approved combination with Educational Psychology, or in Sociology Master of Education candidates are permitted as many as nine semester hours of work in their minor, but take the remaining twelve or fifteen, if minor is only six hours, from courses specifically described or listed under Supervision.)

S207. Technique of Teaching.-3 s.h. Mr. Porter
S209. Statistical Methods in Education.-3 s.h. Mr. Baker
S222. The Curriculum and Materials of the Elementary Grades.-3 s.h.
Mr. Hillman
S232. Elementary School Supervision.-3 s.h.
S273. Problems of High-School Supervision.-3 s.h. Mr. Highsmith
S287. Problems of Mentally and Educationally Retarded Children.-3 s.h. Mr. Wallin
S288. Problems of Mental Hygiene and Education.-3 s.h. Mr. Wallin
S293. Problems of the Teaching Personnel.-3 s.h.
Mr. Baker
S304. The School as an Institution.-3 s.h.
Mr. Goldthorpe
S305. The Nature, Function, and Reorganization of the Curriculum.-3 s.h.
(The Master of Education degree is not offered in this division. Master of Arts candidates should choose Psychology for their minor subject. It will be observed that certain of the courses listed under Educational Psychology are also listed under Supervision, Secondary Education, or Elementary Education.)

S209. Statistical Methods in Education.-3 s.h.
Mr. Baker
S237. Investigations in Reading.-3 s.h.
S247. Investigations in Arithmetic.-3 s.h.
Mr. Brownell
S258. Educational Measurements.-3 s.h.
S300. Introduction to Educational Research.-3 s.h.
Mr. Scates
Mr. Scates
S317. The Psychological Principles of Education.-3 s.h. Mr. Brownell SECONDARY EDUCATION (GRADUATE COURSES)
(Master's candidates in this division should elect minor work in their teaching subject, or in Psychology or Sociology. Master of Education candidates are required to elect their minor work in their teaching subject, and all of their work in Education must come from courses listed in this division. Teachers of Religion in public schools should register in this division unless they prefer to use Religion as their major subject.)

S206. Sociological Foundations of Secondary Education.-3 s.h.
Mr. Childs
S215. Educational and Vocational Guidance.-Prerequisite : twelve semester hours in the Department, including course 105 or course 206.

Mr. Childs
S234. Secondary School Organization and Administration.- 3 s.h.
$\begin{aligned} & \text { S273. Problems of High-School Supervision.-3 s.h. } \\ & \text { Elementary education (Graduate courses). Highsmith }\end{aligned}$
(Master's candidates in this division should take their minor work of six semester hours in Psychology, Educational Psychology, or an approved combination of the two, or in Child Welfare and Development-wholly in Sociology, or partly Sociology and Psychology, or Educational Psychology, if a satis factory combination can be worked out. Master of Education candidates in this division must take fifteen semester hours of work described or listed under Elementary Education.)

S207. Technique of Teaching.-3 s.h.
S222. Elementary School Supervision.-3 s.h.
Mr. Porter

S232. Elementary School Supervision.-3 s.h.
S237. Investigations in Reading.-3 s.h.
S247. Investigations in Arithmetic.-3 s.h.
Mr. Brownell
S268. Investigations in Geography.-3 s.h.
Mr. Hillman
S287. Problems of Mentally and Educationally Retarded Children.-3 s.h.
Mr. Wallin
S288. Problems of Mental Hygiene and Education.-3 s.h. Mr. Wallin
S304. The School as an Institution.-3 s.h.
Mr. Goldthorps
S305. The Nature, Function, and Reorganization of the Curriculum.-3 s.h.

Mr. Gwynn

## COURSES RECOMMENDED FOR DEANS OF WOMEN AND OTHER PERSONS INTERESTED IN GUIDANCE AND COUNSELING

Persons interested in preparing for positions such as dean of women, girls' adviser, director of guidance, and the like, are advised to plan a Master's degree consisting of graduate courses drawn from educational psychology and supervision, general psychology, and sociology, from such courses as the following :

Education
S206. Sociological Foundations of Education.
S208. Mental Tests and Applications.
S215. Educational and Vocational Guidance.
S218. Educational Implications of Genetic Psychology.
S233. Pupil Accounting, or
S233A. Pupil Personnel Problems and Procedure.
S234. Secondary School Organization and Administration.
S239. Investigations in Tests and Measurements.
S258. Educational Measurements.
S287. Problems of Mentally and Educationally Retarded Children.
S288. Problems of Mental Hygiene and Education.
S289. Character and Personality Testing.
S305. The Nature, Function, and Reorganization of the Curriculum.
S317. Advanced Educational Psychology.
Psychology
S204. Psychology of Motivation.
S206. Social Psychology.

## Sociology

S205. Social Pathology.
S212. Child Welfare.
S216. Urban Sociology.
S220. Rural Sociology.
S236. Social Ethics.
S281. Social Attitudes and Collective Behavior.

## ENGINEERING

PROFESSOR WILLIAM HOLLAND HALL, DEAN OF THE COLLEGE OF ENGINEERING-101 ASBURY
The College of Engineering will use the sumnier to enable students who have had only one or three or fiye semesters, or for other reasons are irregular in their schedule beginning next September, to take courses in Engineering or other required subjects that they cannot take in the fall semester of 1946.

## ENGLISH

professor newman i. white, chairman-2G west duke building; professor J. b. HUBBELL, DIRECTOR OF GRADUATE STUDIES- 105 EAST DUKE BUILDING

Master's candidates in English are required to complete at least three semester hours in Chaucer or certain other designated courses. Master's candidates
who have completed as many as twelve semester hours of graduate work should take also the bibliography course, S301, at their earliest opportunity.

Si. English Composition.-3 s.h.
S2. English Composition.-3 s.h.
S55. Representative English Writers.-3 s.h.
S56. Representative English Writers.-3 s.h.
S107. Journalism.-3 s.h.
Mr. Sugden
S108. Journalism.-3 s.h.
Mr. Sugden
Mr. West
S120. History of the Theater.-3 s.h.
S124. Shakespeare.-3 s.h.
Mr. Talbert
S126. English Literature of the Romantic Period.-3 s.h.
Mr. Patton
S138. American Literature, 1850-1900.-3 s.h.
Mr. Leary
S139. The Speaking Voice.-3 s.h.
S140. The Speaking Voice.-3 s.h.
Mr. West
Mr. West
S151. Speech.-3 s.h.
Mr. Badenoch
S152. Argumentation.-Prerequisite: English S151. 3 s.h. Mr. Badenoch
S203. Chaucer.-3 s.h.
Mr. Talbert
S223. Survey of Later Nineteenth-Century Literature.-3 s.h.
Mr. Bevington
S229. American Literature, 1800-1870: The New England Writers. 3 s.h.
Mr. Smith
S233. American Literature since 1870: Part I.-3 s.h. Mr. Smith
S301. Bibliography and Methods of Research.-3 s.h.
Mr. Leary
S307-308X. Seminar in American Literature.-3 to 6 s.h.
Mr. Gohdes

## FRENCH

professor albert m. Webb, chairman - 107 gray building
S2. Elementary French.-3 s.h.
S3. French Prose.-Prerequisite: French S1-S2 or two years of highschool French. 3 s.h.

S4. French Prose.-Prerequisite: French S3. 3 s.h.
S51. Introduction to French Literature.-Prerequisite: French S3-S4 or equivalent. 3 s.h.

S52. Introduction to French Literature.-Prerequisite: French S51. 3 s.h. GEOLOGY
S51-S52. General Geology.-4 s.h.
S102. Mineralogy.-4 s.h.
GERMAN
PROFESSOR VOLLMER, CHAIRMAN-205 PAGE BUILDING
S2. Elementary German.-3 s.h.
Mr. Wilson
S3. Intermediate German.-3 s.h.
Mr. Krummel
S4. Intermediate German.-3 s.h.
Mr. Krummel
S107. Scientific German.-3 s.h.
Mr. Wilson

GREEK AND ROMAN LITERATURE
(In English Translation)
Greek S121. Homer.-3 s.h.
Mr. Rose
Greek S122. Greek Literature: The Great Tragedies.-3 s.h.
Mr. Rose
Latin S112. Vergil and Horace.-3 s.h.
Mr. Rose
HISTORY
PROFESSOR WILLIAM T. LAPRADE, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES-2B WEST DUKE BUILDING
S91. Political and Social History of the United States to 1850.-3 s.h.
Mr. Van Dusen
S92. Political and Social History of the United States since 1850.-3 s.h. Mr. Van Dusen

S125. European History 1789-1870.-3 s.h.
S126. Europe since 1870.
S141. The Far East and the Nineteenth Century.-3 s.h.
Mr. Clyde
S162. Russia from the Rise of the Duma through the Second World War. -3 s.h. Mr. Curtiss

S203. Civil War and Reconstruction.-3 s.h. Mr. Woody
S241. Foreign Relations, Diplomacy of the United States, Pacific Area, and the Far East in the Nineteenth Century.- 3 s.h.

Mr. Clyde
S262. Russia in the Twentieth Century.-3 s.h. Mr. Curtiss
S315. Seminar in Southern History.-3 s.h.
Mr. Woody

## MATHEMATICS

PROFESSOR J. J. GERGEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES03 GRAY BUILDING
S1. Introduction to College Algebra.-3 s.h.
S2. Trigonometry.-3 s.h.
S5. College Algebra.-3 s.h.
S50. Analytic Geometry.-3 s.h.
M5. Differential Calculus.-4 s.h.
M6. Integral Calculus.-3 s.h.
S225. Theory of Equations.-Prerequisite: integral calculus. 3 s.h.
S226. Galois Theory of Equations.-Prerequisite: integral calculus. 3 s.h.
S236. Modern Algebra.-Prerequisite: integral calculus. 3 s.h.
S255. Projective Geometry.-Prerequisite: integral calculus. 3 s.h.
S256. Projective Geometry.-Prerequisite: integral calculus. 3 s.h.
S291. Theory of Functions.-Prerequisite: integral calculus. 3 s.h.
S292. Theory of Functions.-Prerequisite: Mathematics 291. 3 s.h.
S325. Real Variable.--Prerequisite : integral calculus. 3 s.h.
S326. Real Variable.-Prerequisite : theory of limits. 3 s.h.
S351. Differential Geometry.-Prerequisite: integral calculus. 3 s.h.
S389X. Thesis Seminar.-Thesis credit only.

## PHYSICS

PROFESSOR W. M. NIELSEN, CHAIRMAN OF PHYSICS DEPARTMENT111 PHYSICS BUILDING
S1. General Physics.-4 s.h.
S2. General Physics.-4 s.h.

## POLITICAL SCIENCE

PROFESSOR R. S. RANKIN, ACTING CHAIRMAN AND ACTING DIRECTOR OF GRADUATE STUDIES- 308 LibRARY
S61. American Government and Politics.-3 s.h.
S62. American Government and Politics.-3 s.h.
S207. American Constitutional Law and Theory.-3 s.h. Mr. Rankin
S209. State and Local Government in the United States.-3 s.h.
Mr. Rankin
S229. Recent and Contemporary Political Theory.-3 s.h. Mr. Hallowell

## PSYCHOLOGY

PROFESSOR HELGE LUNDHOLM, CHAIRMAN-201 SCIENCE BUILDING, EAST CAMPUS; PROFESSOR KARL E. ZENER, DIRECTOR OF GRADUATE STUDIES217A SCIENCE BUILDING
S91. Introduction to Psychology.-3 s.h.
S206. Social Psychology.-3 s.h. Mr. Adams
S212. Physiological Psychology.-3 s.h.
Mr. Zener
S217. Gestalt Theory.-3 s.h.
Mr. Adams

## RELIGION

PROFESSOR BENNETT HARVIE BRANSCOMB, DEAN OF THE DIVINITY SCHOOL- 110 DIVINITY SCHOOL; PROFESSOR H. SHELTON SMITH, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES- 302 dIVINITY SCHOOL ; PROFESSOR H. E. MYERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES204 DIVINITY SCHOOL
S1. The English Bible.-3 s.h.
S2. The English Bible.-3 s.h.
S51. The History of the Hebrew People.-3 s.h.
Mr. Spence
S52. New Testament Life and Literature.-3 s.h.
Mr. Spence
S102. The Christian Church in the Social Order.-3 s.h.
Mr. Ormond
S181. The Nature and Early Development of Religion.-3 s.h.
Mr. Cannon
S182. Living Religions of the World.-3 s.h.
Mr. Cannon
S223. Conceptions of Man in Western Thought.-Prerequisite: 3 s.h. in Christian Doctrine or 6 s.h. in Philosophy. 3 s.h. Mr. Cushman

S255. The Church and Community.-3 s.h.
S303. Contemporary Palestine.-3 s.h.
S319. The Life and Letters of Paul.-3 s.h.
S321. Early Christian Apocalyptic Writings.-3 s.h.
S392. Christian Thought in America Today.-3 s.h.
S396. Modern American Christology.-3 s.h.

Mr. Ormond Mr. Stinespring

Mr. Clark
Mr. Clark
Mr. Smith
Mr. Smith

## SOCIOLOGY

PROFESSOR HOWARD E. JENSEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES203 CARR BUILDING

Attention is called to the fact that Sociology S101 is prerequisite to all other courses in the Department.

S101. General Sociology.-3 s.h.
S126. Sociology of Occupations.-3 s.h.
S206. Criminology.-3 s.h.
Mr. Hart
Mr. Wilson
Mr. Jensen
S212. Child Welfare.-3 s.h.
Mr. Jensen
S218. Cultural Anthropology.-3 s.h.
S236. Social Ethics.-3 s.h. Mr. Thompson Mr. Hart
S281. Public Opinion.-3 s.h.
Mr. Wilson

## SPANISH

PROFESSOR OLAV K. LUNDEBERG, DIRECTOR OF THE SCHOOL OF SPANISH STUDIES115 CARR BUILDING; PROFESSOR BRADY R. JORDAN, DIRECTOR OF GRADUATE Studies in romance languages, 216 carr building

S1. Introductory Spanish. - 3 s.h.
Mrs. Dillingham
S2. Introductory Spanish. - 3 s.h.
Mrs. Dillingham
S3. Intermediate Spanish.-3 s.h.
S4. Intermediate Spanish.-3 s.h.
Mrs. Castellano
S65. Introduction to Modern Spanish Literature.-3 s.h.
S68. Introduction to Spanish-American Literature.-3 s.h.
S173. Advanced Oral Spanish.-Prerequisite: for credit, at least three full years of college Spanish; for audition with instructor's consent, no specific prerequisite. 3 s.h.

Sr. Castellano
S255. Problems in the Learning and Teaching of Spanish.-Prerequisite: at least three years of college Spanish. 3 s.h. Mr. Russell

S278. Spanish-American Literature: The Colonial Period.-3 s.h.
Mr. Russell
S279. La novela picaresca.-3 s.h.
Sr. Castellano

## ZOOLOGY

fROFESSOR IRVING E. GRAY, CHAIRMAN-218 BIOLOGY BUILDING; PROFESSOR GEORGE T. HARGITT, DIRECTOR OF GRADUATE STUDIES- 326 BIOLOGY BUILDING

S1. General Zoology.-4 s.h.
S2. Animal Biology.-Prerequisite: Zoology 1. 4 s.h.
S53. Comparative Vertebrate Anatomy.-Prerequisites: Zoology 1 and 2. 4 s.h.

S151-152. Comparative Physiology.-Prerequisite: Zoology 53. 6 s.h. Mr. Wilbur
S162. Marine Zoology.-3 s.h.
S203. Marine Ecology.-6 s.h.
Miss Magalhaes
Mr. Pearse
S219. Special Problems.
Miss Magalhaes, Mr. Pearse
(Write for special announcement of problem and research courses offered at Beaufort.)

## DUKE UNIVERSITY

# DEGREES AND HONORS CONFERRED (1946) 

ROLL OF STUDENTS (1945-1946)

Trinity College and the College of Engineering
The Woman's College
The Graduate School of Arts and Sciences
The Divinity School
The School of Law
The School of Medicine
The School of Nursing
The School of Forestry

# DEGREES AND HONORS CONFERRED (1946) 

Akers, Rowena Betty<br>Anderson, Emily Katherine<br>Beattie, Mary Elizabeth<br>Beggs, Betty Anı<br>Bennethum, Marjorie Gurnett<br>Berkson, Carmela<br>Bledsoe, Betty Jane<br>Bobb, William Anders<br>Boehme, Mary Harding<br>Brahany, Gloria Anne<br>Brooks, Charles M.<br>Brown, Nancy Elizabeth<br>Buchanan, Alma Anne<br>Burbank, Daniel Norman<br>Burdett, Joneta<br>Burgard, Annette Crawford<br>Cameron, Angus McKay<br>Cameron, Marjorie Louise<br>Carroll, Kenneth L.<br>Carter, Jacqueline Anne<br>Cassady, Mary Ann<br>Chelimer, Edith Avery<br>Church, Willa Lee<br>Clarkson, Sarah Burgess<br>Cohen, Joyce Ruth<br>Colton, Emmi<br>Cooper, Alice Heygel<br>Corwin, Patricia Ann<br>Cougle, Syble Lawson<br>Councill, Grace McNinch<br>Courts, Sara Anne<br>Cox, Dorothy Lucile<br>Cunliff, Elizabeth Wilson<br>Dabbs, Margaret Louise<br>DeLong, Lois Ellen<br>Marzy, Verna De<br>Derrick, Irene Ritter<br>DeVan, Cornelia Imogene<br>Dickson, Benjamin Hedgepeth<br>Doctor, Anna Los<br>Dopke, Virginia H.<br>Duffy, Ruth Anne<br>Entrekin, William Frank, Jr.<br>Essey, Albert John<br>Fetherston, Dorothy Jean<br>Fike, Ruth Maric<br>Fleck, Elizabeth Jane<br>Fletemeyer, Gloria Lou<br>Fogle, Marjorie Elberta<br>Franklin, Amy Josephine<br>Frizzelle, John Lloyd, Jr.<br>Fultz, Beverly Ann

Gantt, Betty Sue
Gaudynski, Joan Louise
George, Leonard Beattie, Jr.
Gobbel, Margaret McElrath
Gosford, Barbara Olyve
Green, Harriet
Griggs, Harriet
Griswold, Marie Frances
Groh, Phyllis Marie
Gross, Beatrix Cobb
Hanlon, Lois Jeanne
Hanson, Patricia Ann
Hartz, Hazel Rodgers
Heffner, Ann Thornton
Helmick, Harriet Wright
Heykoop, Hendrika Georgia
Hickok, Sylvia Hoover
Holmes, Carol Ruth
Hood, Charles Edwin
Huntsman, Carmen
Hylton, Harriet
Ipock, Annie Charlton
Jenkins, Margaret Le Fevre
Jewell, Betty Bell
Jordan, Sara Alice
Kelly, Patricia Ann
Kiley, Alyce Jeanne
Kindler, Helen Yvonne
Klotz, Peggy Jean
Lanham, Olivia Sherertz
Lewis, Dorothy Brooks
Lockhart, Ann
Lowrie, Margaret
Main, Barbara Lou
Manahan, Mary Carolyn
Mayers, Catherine Ann
McCrummen, Nancy Ione
McDougald, John Atchison
McGimsey, Edward Claywell
McGowan, Martha Frances
McMahan, Betty Anne
McMorries, Cynthia Read
Meriwether, Jane
Merris, Dora Kendig
Mill, Roberta Ann
Minnich, Gilda Hazel
Mirick, Marjorie
Moffett, Margaret Paul
Moore, Birdie Jean
Murray, Jerry Dwight
Newbold, Betty
Newman, Camille L.

Nicholl, Elinore K.
Oakes, Lucie Mae
Oakes, Lucille McCoy
O'Malley, Gertrucie Mary
O'Neill, Norine Elizabeth
Otto, Margaret
Pace, Emma Jean
Pace, Thomas M.
Parker, Benjamin Joseph
Parker, Charlene Louise
Parsons, Frances Virginia
Pennington, Schuyler Wayne
Perkins, Barbara Louise
Poe, Lucy Naldi
Pool, Stedman Charles
Prather, Elizabeth Ann
Puett, Corinne
Quinn, Jacqueline
Rae, Matthew Sanderson, Jr.
Reed, Earlyn Jo
Rhodes, Frances Pollard
Rial, Rhoda Valerie
Ritch, Lois Wilson
Ritchey, Velma Jane
Roberts, Rachel Evans
Romaine, Ruth Marie
Rose, Elaine Irene
Russell, Elsie Jean
Saperstein, Passie Othello
Saunders, Gladys Mae
Schenck, Helene Jocelyn
Scott, Anna Ruth
Sherrill, Jane
Shumaker, Audrey L.
Smith, Barbara
Smith, Ethelyn Marie
Smith, Judith Brevoort
Smith, Margaret Elisabeth

Smith, Sidney William, Jr.
Smither, Alice Haizlip
Smoot, Lucile Cobb
Sour, Nancy Aborn
Stanton, Tommye
Stark, Jean McGilvray
Stride, Elaine
Suiter, Virginia Ghio
Sutton, John Marshall
Tecklin, Helen B.
Thackston, Kathryn Inez
Thigpen, Dorothy Dotger
Thomas, Reba Carolyn
Thornton, Marilyn Edith
Todd, Doris Louise
Toole, Cora Elizabeth
Tower, Jean Frances
Turner, Dorothy
Upshaw, Nancy Miller
Vandiver, Evelyn Florence
Vatz, Betty Abelman
Vereen, Jessie Louise
Vickers, Lawrence Otis
Ward, Patricia Marie
Warner, Tim Goode
Watts, Robert Johnson
Weiland, Johanna Jean
Wenger, Nancy Jane
Wethington, Lois Ruppenthal
Whitely, Hulda Ruth
Wilson, Mary Allen
Wood, Anne
Wooten, Terry Clair
Worth, Elizabeth Millner
Wright, Jesse Hargrave Gordon
Young, Cora Lynn
Yount, Marea Jordan
Zehmer, Margaret Tyler
B.S. DEGREE

Makovsky, Alice Anne
McCaskill, Jean
Moore, Russell Hobron
Rose, Ronald Seymour
Sanger, Kenneth Edward
Taylor, Betty Ann
White, Anne Douglass
A.M. DEGREE

Ginther, James Edward
Giuliano, Jerry James
Grasty, George Mason
Kelly, Kathleen Eliza
Lair, Eugenie Dille
Parker, Mary Ellen
Patton, Dorothy Jean
Ringler, Betty Irene
Shapiro, Constance
Sowder, Ellie Mae

Bruffey, Clarence Mason
Good, Warren Richard
Horner, Jack
Marr, Claude Canie

Ferrell, William Kreiter Goebel, Norbert Eernard
M.ED. DEGREE

Sullivan, Dallas Earle
Walker, Thelma Pauline
Wilson, Ronald Sanders
M.F. DEGREE

Young, Harold Edle
B.D. DEGREE

McCleskey, Walter Scott
McCoy, Charles Sherwood
Moore, Jack Warren
Oliphint, Benjamin Ray
Oglesby, Glynn Aubrey
Peery, John Franklin
Perkins, Theodore Edison
Petteway, Warren Bernard
Pfisterer, Fred Russell
Purcell, Eugene George, Jr.
Ridenour, Henry Isley
Risinger, Melvin Smith
Sales, Reames Hawthorne
Sampselle, William DeVries
Shore, Philip Linus, Jr.
Smiley, Donald Gilbert
Stanfield, Claude Edwin
Tucker, Roger Wilkins
Vereen, LaFon Carpenter
Wells, Robert Newton
Young, Alvin Clyde

PH.D. DEGREE
Barnes, George Hector, B.Sc.F., University of Washington; M.S., University of California.
Dissertation: Development of Mixed Even-Aged Stands of Douglas Fir and Western Hemlock.
Carroll, Howard, A.B., University of Richmond; B.D., Duke University. Dissertation: Polycarp of Smyrna-With Special Reference to Early Christian Martyrdom.
Harlow, Agnes Virginia, A.B., Mount Holyoke College; A.M., University of California.
Dissertation: Thomas Sergeant Perry (1845-1928): A Biographical Study.
Humphrey, Elizabeth Marie, A.B., Earlham College.
Dissertation: Discrimination Between High- and Low-Scoring Subjects in ESP Tests on the Basis of the Form Quality of Their Response Drawings.
King, Emily Barton, A.B., Converse College; A.M., Duke University. Dissertation: The Concept of Revolution in French Literature Between Two Wars.

Lewis, Frank Bell, A.B., A.M., Washington and Lee University ; B.D., Th.M., Union Theological Seminary. Dissertation: Robert Lewis Dabney: Southern Presbyterian Apologist.

Linschitz, Henry, B.S., College of the City of New York; A.M., Duke University.
Dissertation: The Intermolecular Association of Some Carboxylic Acids in Benzene.
McAndrew, Florence Helton, A.B., Mary Baldwin College; A.M., Northwestern University.
Dissertation: The Relation of Some Physical Factors to Rigidity.
McNeill, Ellis Meade, A.B., Concord State Teachers College; M.S., West Virginia University.
Dissertation: A Contribution to the Knowledge of West Virginia Algae.
Matte, Lorenzo, B.S., Université Laval; M.F., Duke University.
Dissertation: The Taper of Coniferous Species with Special Reference to Loblolly Pine.
Salomon, Ann Douglass, A.B., Swarthmore College.
Dissertation: A Quantitative Investigation of the Effects of Certain Visual Field Factors Upon the Perception of Direction.
Stainbrook, Edward John, A.B., Allegheny College.
Dissertation: A Study of the Effects of Various Kinds of Induced Convulsive Reactions upon the General and Maze Behavior of the Rat.
Thomas, Mary Elizabeth, A.B., A.M., University of Arkansas.
Dissertation: Great Britain and Belgian Neutrality, 1887-1914.
Young, Franklin Woodrow, A.B., Dartmouth College; B.D., Crozer Theological Seminary.
Dissertation: The Shepherd of Hermas: A Study of His Concepts of Repentance and of the Church.

HONORS IN GRADUATING CLASSES
Summa Cum Laude

June 23, 1945
Walter Lyons Brown
October 24, 1945
Lewis McAdory Branscomb

June 23, 1945
Edgar Eugene McCanless
Joseph David Schweinfurth

May 25, 1946
Sylvia Hoover Hickok Edith Avery Chelimer

Magna Cum Laude
May 25, 1946
Robert Johnson Watts
Marjorie Mirick
Emma Jean Pace
Passie Othello Saperstein
HONORS IN DEPARTMENTS AND SCHOOLS
School of Law-Order of the Coif and graduated "With Distinction"Ivan Cate Rutledge
Navy Program-July and October Semesters
July 5, 1945-February 25, 1946
Students are listed according to ran's in class
Freshman Honors
Doggett, Lewis Carpenter
Howe, William Bell White
Musselman, William Barry
Jackson, Harold Mackenzie
Osborne, John Coughline

Irwin, George Leigh Bradley, Emmett Hughes
Wagner, Fred Reese Patterson, Daniel Watkins
Fleming, James Carlton
Shaw, John Lester

Friauf, Robert James
Hayes, Leonidas Braxton
Taylor, David Kerr
Fugale, Frank William

## Sophomore Honors

Spears, Marshall Turner Pratt, Edmund Taylor, Jr. Boeckel, John Hart

## Junior Honors

Kirk, Robert Louis
Marx, James Henry
Stephenson, Harold P.
The Woman’s College, 1945-1946
Freshman Honors

McDonald, Elizabeth
Willoughby, Lois Jean
Vosburgh, Mary Elizabeth
Hurley, Betsy John
Ligon, Elsie Pauline

Blue, Janet Shirley
Penfield, Margaret Anne
Adams, Nancy Quinter
Cove, Enta Harriette
Whetstone, Gloria Käthleen

## Sophomore Honors

Patee, Jean Marie
Terrell, Katherine
Walker, Jo Anne
Bliss, Myrtle Ann
Angevine, Joan Anderson
Huffman, Ruth J.
Naylor, Beatrice Claire

## Junior Honors

Hartman, Virginia Lucille
Barnhart, Jean Wilson
Clute, Marjorie Ann
Hudson, Frances
Taylor, Margaret Green
Schimel, Jeanne Merrill

Long, Rosalie Elma
Murchison, Betty Powell
Walters, Mary Elizabeth
Taylor, Mary Jo
McElroy, Antoinctte Paulin

Degrees Awarded since Commencement in May, 1945 Degrees Awarded June 23, 1945
A.B. DEGREE

Bedinger, John Franklin
Bedinger, Neal Anderson, Jr.
Beres, Herbert
Compton, Caroline King
Davie, Shirley Christina
Fenstermacher, Robert James
Gaffney, George W.
Hattaway, James Herbert
Hightower, Dorothy
Hoehl, John Robert
Holcombe, Lynn Montanye, Jr.

Hood, Richard Thornton, Jr.
Kicklighter, James Ellis
McCanless, Edgar Eugene
Mulligan, Mary Lou
Musselman, Nina Mae
Schweinfurth, Joseph David
Seymour, Robert Edward, Jr.
Smart, Roy Louis, Jr.
Smith, Edward F.
Smith, Whitefoord, Jr.
Wells, William Miles, Jr.

## B.S. DEGREE

Bell, Janice Eileen
Bowden, George Edwin

Brown, Walter Lyons
Leigh, Robert Edward, Jr.

## In Civil Engineering

Browder, Joseph Garrott
Hipple, Harris Blair
Gardner, William Henry, Jr.

## In Electrical Engineering

McMurran, William Royall Ramey, Robert Lee

Swaringen, Charles T., Jr.
In Mechanical Engineering

Braswell, Charles Clarence
Broadfield, Ward Holt, Jr. Cocke, John
Dixon, John Milner Doyle, Richard Lee Elkins, Augustus Coolidge Fox, George Henry, Jr. Freeman, Jack

Adams, Barbara Faye Banks, Katherine Mc. Barbrey, Betty
Bennett, Virginia Rose
Bond, Sarah Roberts
Boring, Dorothy Louise
Braswell, Ruth Davis
Broadhurst, Jane
Byrd, Frances Levenia
Byrd, Mary Jane
Caviness, Edith Ann
Chalker, Mary Culbertson
Colley, Myrle
Cothran, Jane
Covington, Martha Lee
Davis, Martha Jane
Davis, Pauline
Davis, Ruth
Davis, Virginia Helen
Denny, Janice Clarine
Durner, Hazelruth
Fisher, Mary Alice
Freeman, M. Trudell
Givin, Nelle Brown
Gossett, Mary Frances
Gray, Virginia
Hanna, Mary Chapman
Harlow, Gene
Hawes, Ruth Mae
Hege, Margaret Elizabeth
Kaiser, Edith Elise
Kime, Selena Frances
Kirby, Mary Katherine

Irwin, Frank Moore
Kelly, James Gerald
Morris, Robert Willingham
Powell, Harry Rutter
Robinson, Harry Delmer, Jr.
Rowe, Frank Hamett, Jr.
Smurthwaite, Paul Malcolm, Jr.
Stone, Robert Lee, Jr.

DIPLOMA IN NURSING
Knowles, Lois Nina
Lawrence, Elizabeth Biddle
McElroy, Barbara Anne
McIntyre, Jean Carruthers
Mitchell, Paula Mozelle
Morrow, Nancy Anne
Nash, Doris M.
Mix, Joan Darling
Reflogal, Jacquelyn
Rhoad, Betty Claire
Riddle, Betty Louise
Robeson, Jeanne
Robinette, Helen Margaret
Robinson, Mary Jean
Rowland, Alice Bird
Sawyer, Mary Harriet
Smith, Adella May
Smith, Emily June
Solomon, Hazel May
Stewart, Katherine McNeill
Stiglitz, Adelaide Lucille
Styron, Myrtle Fiances
Taylor, Virginia Louise
Tierney, Helen Ida
Vaughan, Louise Councell
Wahmann, Nancy Bidgood
Warren, Joyce Elizabeth
Watkins, Martha Elizabeth
White, Betty Evelyn
Willcox, Mary Moore
Wylie, Ruth L.
Yoak, Betty Jo
B.S. DEGREE IN NURSING

Adams, Barbara Faye
Banks, Katherine Mc. Braswell, Ruth Davis
Byrd, Frances Levenia

Byrd, Mary Jane
Coggins, Frances Lyon
Colley, Myrle
Covington, Martha Lee

Davis, Martha Jane
Davis, Pauline
Hanna, Mary Chapman
Hawes, Ruth Mae
Kime, Selena Frances
Lawrence, Elizabeth Biddle
McIntyre, Jean Carruthers
Nash, Doris M.
Robinson, Mary Jean
Smith, Emily June
Solomon, Hazel May

Stewart, Katherine McNeill
Stiglitz, Adelaide Lucille
Styrone, Myrtle Frances
Taylor, Virginia Louise
Tierney, Helen Ida
Vaughan, Louise Councell
Warren, Joyce Elizabeth
Watkins, Martha Elizabeth
Willcox, Mary Moore
Yoak, Betty Jo

## B.S. DEGREE IN MEDICINE

McGovern, John Phillip
Newbold, Herbert Leon, Jr.
St. John, Joseph Harold

## M.D. DEGREE

McPherson, A. Ziegler
Metzger, James Thompson
Miller, Lowell Stephen
Mims, Oscar McLendon
Moody, James Donaldson
Moore, Thomas Joseph
Newbold, Herbert Leon, Jr.
Paddison, Richard Milton
Park, Herbert William, III
Perkins, Neal Copeland
Philips, Benjamin Jackson, Jr.
Pittman, Alfred Rowland, Jr.
Poole, Grover Duckett
Ragland, Robert Barclay
Ruffin, Clarence Lee
Ruskin, Edwin Robert
Russell, Robert McCurdy
St. John, Joseph Harold
Schwartz, William Benjamin, Jr.
Sheldon, Murray Bernard, Jr.
Smith, Stephen David
Snyder, Thoburn Rudolph, Jr.
Stainbrook, Edward John
Stewart, William Sinclair, IV
Swain, Wingate Elwood .
Taylor, Frederick Harvey
Thompson, Paul Claytor
Vatz, Bennie
Voyles, Carl Marvin, Jr.
Watkins, William Thurman, Jr.
Weber, William Donald
Welborn, Samuel Gould
White, Hayes MacMurry, Jr.
Withers, Walter Barron
Wulfman, Robert Clifford
Youngstrom, Karl Arden
Zahn, Albert C.
Degrees Awarded September 1, 1945
A.B. DEGREE

Adams, Erma L.
Allard, Margaret Louise
Barker, Mary Aileen
Coble, Eugenia Elizabeth

Colston, Margaret Virginia
Copeland, Susan Faye
Crane, Frank, II
Ethridge, Mary Snow
Hines, Carolyn Focer Jordan, Gerald Ray, Jr. Laramore, Jean Howell Levy, Merle Jane
Marks, Elizabeth Cross
Meadows, Mary Martha
Morgan, Marie

Murray, Betty Lou
Newton, Robert Lee
Protzmann, Beverly Ann
Ruppenthal, Ethel Althea
Scott, Richard Hendrickson
Shapleigh, Virginia
Stein, James Richard
Upshaw, Ethelyn Louise
Washer, Robert Ralph
Watson, Eleanor Jane
Wouters, Femina Wilhelmina
B.S. DEGREE

Rochlin, Anne Niuta

Bayless, Flora Johnson Beale, Alvin Francis Blakeslee, Verna Treat Garland, James Louis Hammock, Ivy Leona Coil
M.ED. DEGREE

Jakes, Frank Henry
Leete, Mortimer Uriel
Wilson, Robert Seth
Zeigler, Frances Chambers
A. M. DEGREE

Anderson, Ruby Jane Barstow, Betty Dick Bennett, Jean Arline Blank, Olive Greenawalt Burts, Robert Milton, Jr. Capua, Julius Paul, II Cohen, Eckford L.
Flannery, Peggy Anne Strowd Harris, Yeuell Yeamans
McDonald, Alma Ione Risner, Benjamin, Jr. Rogolino, Mary Theresa Rosenbaum, Haskell Menachim

Salley, Claudia Louise
Saltzman, Irving Jackson
Shankle, Carl Edward
Spears, Julius Hubert
Trammell, Frances Mauldin Volkin, Elliott
Wall, Mildred Eugenia
Warren, Margaret Elizabeth
Watson, Charlie Hugh
Wiles, Charles Preston
Wilson, Ulrey Kaulbach
Zekowski, Arlene Jean

Degrees Aivarded September 8, 1945
LL.B. DEGREE
Sanger, Julian Duuglas
Beal, John C., Jr.
Strine, Lee Tremaine

Degrees Awarded October 24, 1945
A.b. DeGree

Barnwell, Gwin
Branscomb, Lewis McAdory
Brooks, Keith
Budd, James Archibald
Clark, George Philemon, Jr.
Cotten, Annie Laura
Glos, Richard Corbin

Allen, Bonva Closson, Jr.
Atkins, Robert Myrick
Baily, Alfred E.
Eaton, William Mellon

Herbst, Robert Taylor
Murray, Robert Filgo
Reep, Wilda Elizabeth
Scott, Walter, Jr.
Smiseth, Gwendolyn Elisabet
Smith, Wilma Verniece
Stapf, Edith Ellen

## B.S. DEGREE

Forbes, Kenneth Keith
Gresham, Rex M.
Knotts, Ernest Mack
Lange, Carl James

LaRue, Jim Elmer
Lucas, Stephen John
Manning, Walter Harold, Jr.
Newton, Ernest Cliborne
Nickerson, Marcus F., III
Page, Robert Lionel
Patrick, William Franklin, Jr.

Paytash, Joseph, Jr.
Roberts, Levi James, Jr.
Smith, Robert Samuel
Spann, Willis Lee
Stark, Carole Jane
Van Denend, Herbert
Wells, William Charles Veigel, Jr.

## In Civil Engineering

Thompson, James Gilliam
Becker, William Frederick
Hargett, Derward Mitchell
In Electrical Engineering
Fleisher, Martin
In Mechanical Engineering

Arnold, Allen Richard Freedman, William Grubb, John Gilbert Imhoff, John Leonard Markey, John Joseph Ranon, S. Donald

Scanlon, William John
Schneider, Ralph Russell
Shomaker, Frank Ashley
Silverbach, Lee E.
Stockslager, Edwin Stevens, Jr.

Degrees Awarded January 21, 1946
LL.B. DEGREE
Nolen, John Henry
Rutledge, Ivan Cate
Silverberg, Jeroll R

Degrees Awarded February 25, 1946
A.B. DEGREE

Alpert, Eugene Oliver Berkowitz, Ami Emanuel Edwards, William Bacon Foreman, Robert Evans
Harward, Stephen Cannada
Huffman, John Wesley
Maginnis, James Barrett
Mittle, Harold Lee

Beam, Jay Ky
Bracey, Earl Watkins
Brooks, Richard Iddings, Jr.
Farren, William Joseph
Frate, Domenico Carlo
Kelly, John Vincent
Kuhlman, Ormand Frederick
Kulow, Frederick Charles
Laakso, Leslie R.
Lamb, Warren Stacy
Lent, Robert Eugene
McCarty, Jerree Ashton
Mullen, Harris Hopkins
Napier, Baxter Wilson

Park, Ulna Foster
Pope, Warren House
Radford, John Alexander
Skarstrom, John H.
Standish, Livingston Miles
Stanfield, Henry L.
Yount, Paul Wesley, Jr.
b.S. Degree

Newman, Ernest Gustave, Jr.
Pasquinelli, Leo John
Paulson, Theodore B.
Penick, Edward Crenshaw
Peters, James Edward
Plunkett, Robert Dale
Rogers, Kale Eugene
Stone, Mary Catherine
Sunderland, Glenn Wilce
Tracy, Marvin Grant
Warner, John Robinson
Wilhoite, Gene Milton
Woolley, Philip Monroe
In Mechanical Engineering
France, Roy Holroyd
McKee, William David
King, Joseph Calvin

Degrees Awarded March 23, 1946

Alley, Mary Lee
Baker, Irene Alfreda
Bason, Betty G.
Bates, Mary Elizabeth
Brevoort, Esther Ruth
Cannady, Edythe Ethel
Carver, Clara Melissa
Conrad, Phoebe Elizabeth
Cooke, Edith Celestia
Curry, Johnsie Stowe
DeLong, Sara Louise
Dettmar, Frances Aileene
Ensign, Carol Joy
Galloway, Suzayne
Gambrell, Vivian Elaine
Glen, Cecilia W.
Johnson, Martha Leach
Jones, May Craigge
King, Martha Grey
Laws, Cicely Anne

## diploma in Nursing

Lepper, Mary Ellen
Lineberry, Nancy Eleanor
Luna, Patricia Ardelia
Miller, Margaret
Miller, Mary Sue
O'Rear, Jean Fray
Owens, Faith
Ransom, Audrey Mae
Reynolds, Elizabeth Hines
Sharp, Louise Wortham
Smith, Annie Ruth
Smith, Lucy Fay
Talley, Patricia Anne
Taylor, Helen Elizabeth
Thorpe, Annie Louise
Trawick, Betty Jean
Whitfield, May Joyce
Williard, Ruth Boaz
Wirt, Julia Belle
B.S. DEGREE IN NURSING

Jones, May Craigge
Knowles, Lois Nina
Laws, Cicely Anne
Lepper, Mary Ellen
Lucas, Mary Josephine
Sharp, Louise Wortham
Smith, Annie Ruth
B.S. DEGREE IN MEDICINE

Boone, Alexander White, Jr.
Miller, Lowell S.

## M.D. DEGREE

Allen, Harry Sholar, Jr.
Anderson, Clarence Leonidas
Anderson, Reid Hogan
Anderson, Robert Harper
Armstrong, Dorothy Clarke
Bassett, James Guernsey
Belser, Ritchie Hugh
Berne, Alfred Seymour
Binford, Richard Titsworth
Bishop, Richard Calvin
Boone, Alexander White, Jr.
Brink, William Richard
Broadbent, Thomas Ray
Bryan, John Burton
Campbell, Frank Highsmith
Cottle, Ralph Ingersoll, Jr.
Crompton, Robert Edwin Crowell, John Murdoch
Davis, Frank Willard, Jr.
DeReamer, John Wesley
Fichter, Elaine G.

Ford, Zenas W., Jr.
Frankel, Saul Arnold
Goggans, Walter Houseal
Golden, James Boyd
Harrell, Everett Richard, Jr.
Haskell, Edward Gustavus, Jr.
Henderson, Charles Tracy
Henderson, William Neavitt
Hockman, Thomas Alfred
Hood, Thomas Ruffin
Hubbell, David Smith
Hudson, Carlos Lee
Jamison, Ralph Herlinger
Jones, Joseph Kempton
Kelley, Thomas Francis, Jr.
Kerby, Grace Pardridge
Koon, Ethen Sease, Jr.
Koonce, Duval Holtzclaw
Lewis, Thomas Howard
Liversedge, Laurence Atkinson
Lyons, Carmine Keith

McLeod, Walter Anderson, Jr.
Ogburn, Paul Lanier
Peacock, Harold Monroe
Pinck, Robert Lloyd
Powell, Ralph Waldo
Rogers, James Warren
Schear, Evan Weible
Scheid, John Edgar, Jr.
Schlaseman, Guy Walter
Sherman, Paul Henry
Shugerman, Alwyn Abraham
Sieber, Homer Alden
Staub, John Delabarre
Stitt, Richard Marks
Suiter, Thomas Bayton, Jr.

Symmonds, Richard Earl Taylor, Lloyd McCully Thistlethwaite, James Richard Thompson, Frederick Arrowcod, Jr. Thompson, Robert Gordon Tyor, Malcolm Paul Walthall, Joseph Emmett, III Wannamaker, Lewis William
Webb, Bailey
Williamson, James Foster
Willoughby, Dan Hall
Withington, John Cummings
Wrenn, Frank Reece, Jr.
Wycoff, Jack Dunn

Degrees Awarded May 11, 1946
ll.b. Degree
Dunham, Eileen Fogle
Dunham, Frank Rittenhouse

Unger, Maurice Albert

## ROLL OF STUDENTS

## TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

March 5, 1946-June 24, 1946
TC indicates Trinity College and EC College of Engineering. Letters denote classification: C, Civilian; $N$, Navy. Number shows semesters completed as of March, 1946.

Abelkop, Sheldon TC C 4
Abelson, Winston Abraham TC N 1
Adam, Raymond Carl TC C 0
Adams, Hunter Dewees TC N 5
Adler, Sheldon Bert TC C 3
Afflerbach, John Joseph TC N 1 Ahrens, Martin Philipp TC N 0 Aiken, Franklin Dunwoody TC N 5 Alderson, Harold Carl TC C 3 Aldridge, Clyde Lee TC C 0 Alexander, James Robert TC C 3 Allbaugh, Charles Edgar TC N 1 Allen, Jeremiah Mervin, Jr. TC C 4 Allison, Luther Lee, Jr. TC C 7 Allred, William Floyd TC C 5 Alverson, Frank Chesley TC C 0
Amis, Charles J., Jr. TC C 2 Anderson, Charles Duane TC N 6 Anderson, Norman Gulack TC C 5 Anderson, Raymond Douglas TC N 0
Anderson, Robert Aeiker TC C 2
Anderson, William Woodrow TC N 6
Andrews, Clarence Webster TC C 3
Andrews, William F. TC C 3
Angelillo, Ralph Clemens TCC 4
Appen, Raymond Carl TC C 2 Armor, James Burton TC N 5 Armstrong, Elijah Durhanı, Jr. TC C 3 Armstrong, Lonzo P. TC N 5 Ashby, William Clay TC C 4 Atcheson, Frank Arthur TC C 1 Auger, John Gardner TC N 5 Aumen, William Charles EC C 3
Ausbon, Douglas H. TC C 1
Austin, Charles Newton TC C 4
Austin, James Howard TC C 2
Austin, James Jackson TC C 1
Austin, John Teufel TC C 0
Austin, Tollie Edward, Jr. TC C 5
Aycock, Thomas Malcolm TC C 4
Baarslag, Anton Frederik, Jr. TC C 5
Babykin, Anatole Gregory EC C 2
Bagwell, Wallace Bruce TC N 7
Bailey, Raymond Bronson TC C 1
Bainbridge, Albert Wayne EC N 5
Baird, Wasson TC C 3
Baker, Barry TC C 4

Durham, N. C.
Memphis, Tenn.
Maplewood, N. J.
Drexel Hill, Pa.
Brooklyn, N. Y.
Casper, Wyo.
St. Louis, Mo.
Griffin, Ga.
Durham, N. C.
Leland, Miss.
New Orleans, La.
Richland, Kan.
Newtonville, Mass.
Warrenton, Va.
Rockingham, N. C.
Birmingham, Ala.
Durham, N. C.
Lakeland, Fla.
St. Paul, Minn.
Stanford, Ky.
Winfield, W. Va.
Ettrick, Va.
Durham, N. C.
Lynn, Mass.
Newark, N. J.
Oak Ridge, Tenn.
Oklahoma City, Okla.
Beckley, W. Va.
Okemah, Okla.
Mt. Airy, N. C.
Almont, Mich.
Denver, Colo.
Braintree, Mass.
Durham, N. C.
Charleston, W. Va.
Pittsburgh, Pa .
Kingsport, Tenn.
Pittsburgh, Pa.
Portsmouth, Va.
Durham, N. C.
Larchmont, N. Y.
Long Island, N. Y.
Toccoa, Ga.
Bristol, Conn.
Gainesville, Fla.
Des Moines, Iowa
Rocky Mount, N. C.

Baker, Beryl EC N 5
Baker, Sumner Erwin TC N 6
Baldwin, Fred Walker EC N 5
Baldwin, Kenneth Rone TC C 2
Banks, Sam Alston, Jr. TC C 0
Baradel, Robert Joseph TC C 4
Barbee, Charles W. TC C 4
Barbee, Robert Edward TC C 0
Barber, John Wilson TC C 3
Barker, Charles Warwick TC C 1
Barker, Julian TC C 2
Barkin, Bernard Lewis TC C 2
Barnard, George William TC C 1
Barnes, Albert Ernest TC N 2
Barnes, Henry Franklin 'TC C 7
Barnett, Ewing Smith TC C 2
Barrett, John Albert TC C 5
Barrett, Richard I. TC C 1
Barrett, Walter Edwin TC C 4
Barron, Archie Ingram, III TC C 3
Barrow, Thomas Augustine, Jr. EC N 5
Bartel, Frank Octave TC C 2
Bateman, Robert Clark TC C 6
Bates, Alvin Kay TC N 7
Baucom, Daniel Reid TC C 1
Baugh, Ruffner Perry TC C 1
Baughman, Charles Ben, Jr. TC N 1
Bausch, James William TC N 2
Baxter, Sherman Douglas TC C 3
Bayers, John, Jr. EC N 5
Bayless, Horace W. TC C 5
Baynes, Bascom Thornton, Jr. EC C 2
Baynes, James Rufus TC C 1
Bear, Laurie Alan TC C 1
Bechtel, John Charles TC C 2
Bechtold, George William EC N 6
Becker, Harold Leo EC N 6
Beckler, Samuel Ray TC N 1
Becknell, George Franklin, Jr. TC C 1
Bedell, Harold Edward TC C 3
Beightol, Guy Dixon TC C 7
Bell, Frank Lee TC C 7
Bell, Howard Edward TC N 1
Bell, James Roy TC N 2
Bell, William B. TC C 1
Bell, William Henry TC N 5
Bello, Harold A. TC C 6
Bene, Kalman Joseph TC C 0
Benedetti, Francis Anthony TC C 3
Benfield, Dana Hunt TC C 1
Bennett, John Pinkston, Jr. TC N 6
Bennett, Reginald Victor TC C 5
Bennett, William Cranford EC C 5
Berlin, Melvin TC C 2
Bernard, Donald Montfort EC C 2
Berne, Edgar TC C 1
Berry, Donald Kay TC C 5
Best, Edward Gene TC C 1
Bethune, Everett P. TC C 3
Beyer, Henry Joseph TC N 6

Atlanta, Ga.
Tampa, Fla.
Cedartown, Ga.
Whiteville, N. C.
Lakeland, Fla.
Brooklyn, N. Y.
Durham, N. C.
Durham, N. C.
Anderson, Ind.
Lumberton, N. C.
Wilson, N. C.
New York, N. Y.
Cramerton, N. C.
Washington, D. C.
Elm City, N. C.
Albany, Ga.
Mt. Holly, N. C.
Fairfield, Conn.
Westfield, N. J.
Manning, S. C.
Lakeland, Fla.
Spartanburg, S. C.
Roanoke, Va.
Nampa, Idaho
Durham, N. C.
Charlotte, N. C.
Elizabethton, Tenn.
Oceanside, N. Y.
Latham, N. Y.
Franklin Park, Ill.
Pt. Hueneme, Calif.
Durham, N. C.
Durham, N. C.
Wakefield, Mass.
Collegeville, Pa .
Pittsburgh, Pa.
Bethlehem, Pa.
Copperhill, Tenn.
Pacolet, S. C.
Freeport, N. Y.
Cumberland, Md.
Durham, N. C.
Colfax, Iowa
Unicoi, Tenn.
Atlanta, Ga .
Kingsville, Texas
Ossining, N. Y.
Franklin, N. J.
Washington, D. C.
Romney, W. Va.
Lufkin, Texas
Louisville, Ky.
Greensboro, N. C.
Savannah, Ga.
Chevy Chase, Md.
Long Island, N. Y.
Overland, Mo.
Goldsboro, N. C.
Arlington, Va.
Portland, Ore.

Biancavilla, Dominick EC C 6
Bianchi, Richard Eugene TC C 2 Biggers, William Joseph TC N 1 Biles, Bedford H. TC C 5
Billings, George James TC N 2
Billings, Jake Thorpe TC C 0
Bingaman, John William TC C 2
Binger, Lowell Nelson TC N 0
Bingham, Alvin Leland, Jr. TC C 0
Bird, Jack Harold TC C 0
Birmingham, Walter Marvin TC N 6
Bisbe, Richard Emil EC N 7
Bishopric, Welsford Farrell TC C 2
Bittle, Charles Robert TC C 0
Bittle, Claude E. TC C 3
Bizzell, Henry A., Jr. TC C 2
Black, Alastair Macdonald EC N 5
Black, David Coley TC C 6
Blackard, Embree Hoss TC C 2
Blackmon, Stephen E. TC N 7
Blackwell, Clifford E. TC C 6
Blackwell, Holden TC C 1
Blake, James Heath TC C 9
Blake, John Ronald TC C 4
Blankenship, Charles Guy TC N 7
Blight, Howard Rodger TC C 7
Bliss, George Yemens TC N 2
Blissell, John George TC N 0
Blome, William Arnold TC C 2
Blount, Gerald Rowden, Jr. TC C 1
Blue, Willis Berton TC C 4
Bodine, Alfred John TC C 1
Bodle, Robert Allan TC C 4
Boeckel, John Hart EC N 5
Boger, Clarence Earl TC N 6
Boggs, James Samuel TC C 4
Boggs, John Campbell, Jr. TC C 2
Bogle, Robert Stover TC C 1
Bogley, Claude William TC N 5
Bolyard, Paul Kenneth TC C 1
Bomar, Thomas Carlton TC C 5
Bonn, Marvin Charles EC N 7
Boone, John Albert TC C 2
Boone, William Gardner, Jr. TC C 2
Booney, Stanley Clayton TC N 0
Booth, Claude Carr EC N 6
Booth, Joseph Kenneth TC N 7
Booth, Samuel Maslon TC C 0
Borden, Windsor John TC C 1
Bortz, Kilmer Schmuck TC C 7
Bossard, John Wesley TC C 7
Bostwick, John Allen, Jr. TC N 5
Boswell, George Thomas EC N 5
Bott, Edward Schlief TC C 5
Bowles, Robert Wichizer TC C 1
Boykin, Lester Junod TC C 6
Boyle, John Robert EC C 3
Boyles, Billy Lewis TC N 1
Bozich, Anthony M. TC N 6
Brackenwagen, Stanley Gene TC N 6

Bronx, N. Y.
Guatemala, C. A.
Dalton, Ga.
Concord, N. C.
Bogota, N. J.
Durham, N. C.
Reading, Pa .
Knoxville, Tenn.
Albany, N. Y.
Greenville, S. C.
Granite City, Ill.
Brooklyn, N. Y.
Spray, N. C.
Charlotte, N. C.
Madisonville, Ky.
Newton Grove, N. C.
Stone Mountain, Ga.
Durham, N. C.
Charlotte, N. C.
Washington, Ga .
Rock ford, Ill.
Durham, N. C.
Kingstree, S. C.
Washington, D. C.
Florence, S. C.
Bridgeport, Conn.
Manhasset, N. Y.
Oil City, Pa.
Lincoln Park, N. J.
Decatur, Ga.
Robards, Ky.
Rochester, N. Y.
Philadelphia, Pa .
Rockville, Md.
Akron, Ohio
Columbus, Ohio
Front Royal, Va.
Concord, N. C.
Friendship Heights, Md.
Glen Dale, Md.
Georgetown, S. C.
Freeport, Ill.
Boone, N. C.
Memphis, Tenn.
Mifflinburg, Pa.
Philadelphia, Pa.
Columbus, Ga.
Statham, Ga.
Oswego, N. Y.
Washington, D. C.
Myersville, Md.
Atlanta, Ga.
Atlanta, Ga.
Belleville, I11.
Garden City, N. Y.
Washington, D. C.
Long Island, N. Y.
High Point, N. C.
Chicago, Ill.
Brookings, S. D.

Bradbury, William Chase TC N 2
Bradley, Emmett Hughes EC C 2 Bradley, Richard Sidney EC C 2
Bragg, Alfred Orman TC C 4
Bragg, Sidney Harold TC C 0
Branch, Charlie E. TC C 1
Brand, Joseph Morgan TC N 5
Brandt, Chester TC C 6
Brandt, William Graham, Jr. TC N 0
Branham, William Dennis TC C 2
Braungart, George EC C 2
Brazis, Michael D. TC C 1
Brennan, William Knodel TC N 5
Brewer, James Lambe TC C 2
Brice, George Wilson TC C 2
Bridges, James Louis TC C 0
Bridges, Ronzee McIntyre TC C 9
Bridwell, Jesse Leroy, Jr. EC N 5
Brinkley, Harvey T. TC C 1
Brinkley, John Dallas TC C 2
Britt, Clyde Lee TC C 4
Brockway, George Lemuel, Jr. EC C 7
Broderick, Lawrence Patrick TC C 1
Brooks, Allan A., Jr. TC C 4
Brooks, Jack Martin EC C 5
Erooks, James Walter, Jr. TC C 0
Brookshire, Samuel James TC N 4
Broughton, Robert E. TC C 0
Brown, Bachman S., Jr. TC N 6
Brown, Chandler Wilcox EC N 6
Brown, Clarence J., Jr. TC N 5
Brown, Curtis Woody TC C 2
Brown, Franklin B. TC C 0
Brown, John Simeon Lafayette TC N 1
Brown, Joshua Robert Calloway TC C 2
Brown, Kenmore McManes TC N 6
Brown, Marion Gillespie TC N 1
Brown, Miller F. EC C 6
Brown, Raymond Nicholas TC C 6
Brown, Spencer Hunter TC N 1
Brown, William Paul TC N 1
Brownell, William H. TC N 5
Bruck, Thomas Joseph EC N 6
Bruker, Eugene Norman TC C 1
Brundage, Blair George TC C 1
Brunner, George Joseph TC N 5
Bruno, Henry Leonida TC N 1
Bryan, William Jennings TC C 3
Bryans, Robert Lee TC C 6
Bryant, Norman TC C 1
Bryant, William Patrick, Jr. TC N 5
Buchanan, Charles Edward TC C 0
Buchanan, Edward Dean EC N 6
Buchanan, Thomas Hilditch TC C 0
Bucher, Elwood Ray TC C 1
Buck, Lewis Alexander TC N 6
Bugg, Charles Paulett TC C 5
Bugg, Richard Alexander, Jr. TC C 1
Buhler, Charles Allen TC N 5
Bullard, John Carson EC N 5

Hopedale, Mass.
Hampton, Va.
Williamson, W. Va.
Pittsburgh, Pa.
Durham, N. C.
Little Rock, Ark.
Louisville, Ky.
Brooklyn, N. Y.
Richmond, Va.
Rocky Mount, N. C.
Atlanta, Ga.
Riverdale, N. Y.
Louisville, Ky.
Siler City, N. C.
Charlotte, N. C.
Beasemer, Ala.
Shreveport, La.
Decatur, Ill.
North Side, N. C.
Valdese, N. C.
Lumberton, N. C.
Havelock, N. C.
Norwich, Conn.
Franklin, N. C.
Hilton Village, Va.
Durham, N. C.
Taylorsville, N. C.
Durham, N. C.
China Grove, N. C.
Short Creek, W. Va.
Washington, D. C.
Hillsboro, N. C.
Orangeburg, S. C.
Wilmington, N. C.
Marietta, Ga.
Coronado, Calif.
Pocahontas, Ill.
Beaumont, Texas
Baltimore, Md.
Oak Ridge, Tenn.
Grandy, Minn.
Fleming, Colo.
Brooklyn, N. Y.
Augusta, Ga.
New York, N. Y.
W. New York, N. J.

Metuchen, N. J.
Boston, Pa.
Pensacola, Fla.
Jacksonville, Fla.
Springfield, Tenn.
Hamlet, N. C.
Lorain, Ohio
Dobbs Ferry, N. Y.
Charlotte, N. C.
Norfolk, Va.
Raleigh, N. C.
Virginia Beach, Va.
Texarkana, Ark.
DeFuniak Springs, Fla.

Bullock, Thomas Kirby TC C 3 Burch, Walter G., Jr. TC N 4 Burgert, Carl Sherman TC C 1 Burgoyne, Caleb Reese EC C 2 Burke, Richard Alan TC C 3
Burkhalter, Archie Herman EC N 4
Burnett, Colbert H., Jr. TC C 1
Burrus, Robert Smith TC C 5
Burson, Bruce Beveridge TC N 1
Burson, Roger Tex TC N 5
Burton, O. M. TC C 2
Busbee, George Dekle TC N 2
Busby, Robert David TC N 4
Busch, Adolphus Louis TC N 1
Butler, Paul Frederick TC C 3
Butler, William Stanton TC C 5
Buzzard, Robert Douglas TC N 5
Byerly, Manly H. Spec. C
Bynum, William Edwards TC C 1
Bruckner, Jack L. (Auditor) Spec. C
Cahow, James Norman EC C 6
Cairns, Frank Elmer, Jr. TC N 7
Caleo, Leon Joseph TC C 4
Callahan, Charles Edward TC N 2
Callis, Benjamin Lewis TC C 2
Cameron, William Duncan TC C 0
Cameron, William R. TC C 2
Campbell, Donald Adams TC C 1
Campbell, Everett Connelley TC C 0
Campbell, Lachlon L. TC C 6
Cappel, Jack Thompson TC C 2
Carlisle, Benjamin Howard, Jr. EC C 7
Carlson, Harold Eugene, Jr. TC N 5
Carpenter, Thomas Earl TC N 6
Carr, Robert Woodworth TC C 2
Carr, Thomas Laurence TC C2
Carrera, Carl Henry TC C 4
Carson, Joseph Edwin, III TC C 0
Carson, Raymond Pressly TC C 7
Carson, Raymond Reese EC N 5
Carter, George Daniel, Jr. TC C 5
Carter, Luther Jordan TC C 2
Carter, Marvin Sutton TC C 4
Carter, Thomas Brian TC C 3
Carver, Charles Hinson TC C 8
Casey, Timothy Michael TC C 5
Cashwell, Richard B. TC N 3
Cathcart, Edward Reaver TC C 2
Cato, Ben Ralph TC C 2
Cawley, Thomas Joseph TC N 0
Cecil. Bradford Hayden EC C 3
Chadwick, David Nicholas, Jr. TC C 3
Chadwick, Harry Roberts, Jr. TC C 2
Chapman, Robert Willis TC C 1
Chappell, Hoye Patterson TC C 1
Chappell, Thomas Tye TC N 5
Chase, Alan Bruce EC N 5
Chase, Fred Lamar TC N 6
Chase, George Oscar TC C 4
Cheek, James B. TC C 2

Birmingham, Ala.
Moulton, Ala.
Cleveland, Ohio
Pensacola, Fla.
Charlotte, N. C.
Pasadena, Texas
Durham, N. C.
Engelhard, N. C.
Selma, Ala.
Albany, Ga.
Thomasville, N. C.
Vienna, Ga.
Ada, Okla.
Irvington, N. J.
Jacksonville, Fla.
Little Neck, N. Y.
Charleston, III.
Lexington, N. C.
Sumter, S. C.
Jamaica, N. Y'.
Omaha, Nebr.
Mazomanie, Wis.
Norfolk, Va.
S. Windsor, Conn.

Willow Springs, N. C.
Kinston, N. C.
Indiana, Pa .
Chapel Hill, N. C.
Charlotte, N. C.
Newport News, Va.
Alexandria, La.
Sandusky, Ohio
Oak Park, Ill.
Goodlettsville, Tenn.
Tulsa, Okla.
Chester, Pa.
Tampa, Fla.
Danville, Va.
Belmont, N. C.
Little Falls, N. J.
Carthage, N. C.
Charlotte, N. C.
Johnson City, Tenn.
Bronxville, N. Y.
Baltimore, Md.
Concord, N. H.
Hope Mills, N. C.
Anderson, S. C.
Charlotte, N. C.
Newark, N. J.
Catonsville, Md.
Wilmington, N. C.
Smyrna, N. C.
Charlotte, N. C.
Condor, N. C.
Plainfield, N. J.
Coral Gables, Fla.
Hollywood, Fla.
Millinocket, Me.
Durham, N. C.

Chellman, Charles Westfield TC N 2
Chesick, Guy Sidney, Jr. TC C 4
Chestnutt, Norwood Bennett TC C 3
Chetlin, Norman Daniel EC N 6
Chick, Ernest Watson TC C 1
Chidester, Robert Paul TC C 2
Chillingworth, Mehrtens Gould TC C 2
Chipley, Flake Bailey, Jr. TC C 2
Chipley, Roy Marshall, Jr. EC N 5
Chisholm, Lorenzo Dow TC C 1
Christian, John Wortham, Jr. TC C 3
Christner, Howard Hayes TC C 2
Christopherson, Warren Hugo TC C 1
Cittadino, Benjamin Nicholas EC C 6
Clark, Gordon Eugene TC N 2
Clark, Hamilton Yancey TC C 0
Clark, John Lewis TC C 1
Clark, Russell Coffland TC C 1
Clark, Walter S. TC C 5
Clary, Guy Willis TC C 1
Classen, Robert Edward TC N 6
Cleary, Robert James TC N 5
Cleaver, Charles Mason, Jr. TC C 3
Clendenin, William Forrest TC N 0
Clifford, Robert Keaney EC C 6
Clow, James Hamilton TC C 5
Clymer, Ludwick M. TC C 5
Coady, James Malcolm TC N 2
Coates, David Hugh TC C 0
Coble, Russell Cooke TC C 1
Coe, Lowry Nadal TC N 5
Coggeshall, Berryman Edwards TC C 2
Cohen, Alan Berman TCC1 $1 / 2$
Cohen, Phineas TC C 1
Cole, John Gordon, Jr. TC C 2
Cole, Leo Lincecum TC N 5
Cole, William Lemuel TC C $\cdot 1$
Coleman, John James, Jr. TC C 4
Coleman, William Patrick TC C 0
Collicott, Lloyd V. TC C 5
Collins, Ira Taylor TC C 2
Collins, Northam Warren TC N 2
Collins, William Cornelius TC N 2
Colmer, Thomas Warren TC N 4
Condon, Vernon William EC N 6
Connor, Robert Earl TC N 2
Cook, Howard Charles TC C 6
Cook, Paul H. TC C 6
Cook, Roger G. TC C 1
Cooke, John Henry EC N 7
Coon, Allan Gregory EC C 2
Cooper, Albert Brandon TC C 1
Cooper, Frederick Stephen TC C 2
Cooper, James Henry TC N 7
Copeland, William Leroy TC C 4
Copenhaver, Edward Holmes, III TC C 2
Cordell, Frank Thomas TC N 5
Cordy, Durrel Francis TC C 0
Corey, James Richard TC N 1
Corley, Charles Birette, Jr. TC C 1

Miami, Fla.
Charlotte, N. C.
Whiteville, N. C.
E. Pittsburgh, Pa.

Durham, N. C.
Ashtabula, Ohio
Honolulu, Hawaii
Rocky Mount, N. C.
Raleigh, N. C.
Charlotte, N. C.
Durham, N. C.
Somerset, Pa.
San Diego, Calif.
Long Branch, N. J.
New Haven, Conn.
York, Pa.
Durham, N. C.
Greensboro, N. C.
Miami, Fla.
Gaffney, S. C.
St. Paul, Minn.
Hinsdale, Ill.
Merion, Pa.
Statesville, N. C.
Baltimore, Md.
Coshocton, Ohio
Greensboro, N. C.
Monument Beach, Mass.
Charlotte, N. C.
Concord, N. C.
Chevy Chase, Md.
Darlington, S. C.
Miami, Fla.
Baltimore, Md.
Blackstone, Va.
Memphis, Tenn.
Durham, N. C.
Birmingham, Ala.
Lynchburg, Va.
Durham, N. C.
Kingsport, Tenn.
Sayville, N. Y.
Providence, R. I.
Washington, D. C.
Charleston, S. C.
Johnstown, Pa.
Johnstown, Pa.
Union Grove, N. C.
Cranbury, N. J.
Middletown, Conn.
Pinnacle, N. C.
Norlina, N. C.
Philadelphia, Pa.
Sanford, Fla.
New York, N. Y.
Newport News, Va.
Bartlesville, Okla.
Hennessey, Okla.
Greenville, N. C.
Newberry, S. C.

Cormack, Charles M., Jr. TC C 4
Corrigan, James H. EC N 6
Corrington, James Edward TC C 3
Cosby, Jack Terrell TC C 6
Couch, Nathaniel Jackson EC N 5
Council, William Christopher TC C 0
Coward, Robert Maurice TC C 0
Coward, Wilson Newell TC C 5
Cowie, Douglas Drann TC C 1
Cox, Gene Spracher TC C 6
Cox, Howard Louis TC C 4
Cox, William Jones TC C 8
Coyle, William Johnson TC C 7
Cranford, Henry Lee TC C 1
Craniotis, George E. EC C 4
Craven, James Braxton, Jr. Spec. C
Credle, Edward Cecil EC N 7
Cressman, Robert Allen EC N 6
Crigler, Benner Bittinger TC C 1
Criswell, Howard Donald TC C 1
Croley, Robert Jerome TC C 2
Cross, Ray Y. TC C 5
Crosson, James Joseph TC C 3
Cudworth, James Rowland EC N 7
Cummins, Roy D. TC N 1
Curlee, Lewis E. TC C 5
Currie, William Irving TC N 1
Curry, John Edward EC N 7
Curry, John Robert, Jr. TC C 2
Cushman, Charles Levi TC C 4
Custer, George Edwin EC N 5
Cutter, Ernest, Jr. TC C 7
Czerwinski, Stephen Ramsay TC C 5
Dailey, Henry E., Jr. TC C 1
D'Albora, John Vincent, Jr. TC C 0
D'Alonzo, Albert F. TC C 0
Dalton, James Gossett TC C 5
D’Amico, Frank John TC C 4
Damren, Jerome Henry TC C 2
Dane, Nelson Breintnall, Jr. TC N 2
Daniel, Joseph March TC C 2
Daniel, Thomas Manning TC C 4
Davenport, Guy Mattison TC C 3
Davenport, Irvin Braxton TC C 0
David, Noble Jonathan TC C 2
Davidson, George Robert EC N 5
Davis, Allen Clayton TC N 1
Davis, Crowley A. TC N 7
Davis, Charles Marion TC C 7
Davis, Donald Harding EC C 3
Davis, James Britt TC N 6
Davis, Wesley Smith TC C 6
Davison, Alexander Thayer TC C 3
Dean, John W. 'TC C 3
Dean, Joseph Carl, Jr. TC C 1
Dee, John Bertram, Jr. TC C 0
DeFilippo, Joseph Martin TC C 3
DeHoff, Harold Lee EC N 5
Delisle, Victor Alexander TC N 0
Dellenbarger, Lynn E. TC C 3

Washington, D. C.
Baltimore, Md.
Clinton, Ill.
Lynchburg, Va.
Macon, Ga.
Durham, N. C.
Durham, N. C.
Winter Park, Fla.
Rockville Center, N. Y.
Kingsport, Tenn.
Jonesboro, N. C.
Elizabeth City, N. C.
Carlisle, Pa.
Winston-Salem, N. C.
Puerto Cortes, Honduras
Morganton, N. C.
Durham, N. C.
Columbus, Ohio
Charlotte, N. C.
Washington, D. C.
Jersey City, N. J.
Albany, Ga.
New Brunswick, N. J.
Tuscaloosa, Ala.
Knoxville, Tenn.
Marshville, N. C.
Roanoke, Va.
Philadelphia, Pa.
High Point, N. C.
Hopewell, Va.
Lakeland, Fla.
Lexington, Mass.
New Haven, Conn.
Watertown, Mass.
Cocoa, Fla.
Philadelphia, Pa .
Charlotte, N. C.
Piniladelphia, Pa .
Claremont, N. H.
Short Hill, N. J.
Parkton, N. C.
Oxford, N. C.
Anderson, S. C.
Durham, N. C.
Jacksonville, Fla.
Baltimore, Md.
Smyrna, Tenn.
Memphis, Tenn.
Tampa, Fla.
Gastonia, N. C.
Birmingham, Ala.
Harrisburg, Pa.
Durham, N. C.
Stovall, N. C.
Kernersville, N. C.
New York, N. Y.
Bridgeport, Conn.
Catonsville, Md.
Bronx, N. Y.
Shaker Heights, Ohio

DeMoll, Louis Edward, Jr. TC C 3
Demott, Robert B. EC C 6
Dennerline, Fred William TC C 4
Denton, William Henry EC N 6
DeRogatis, Albert John TC C 2
deShazo, Thomas Edward, Jr. TC C 1
DeVane, Howard Tillman TC N 6
Devendorf, Wilbur, Jr. TC C 0
Dewberry, William C. TC C 2
De Wees, Leon Albert TC N 3
Dewees, Philip Ernest TC C 6
Diamond, Gustave TC C 2
Dick, Charles Ernest TC N 5
Dickerson, Ned TC C 3
Dickson, William Anthony TC C 0
Dillard, William E. TC N 6
Dillon, Thomas Patrick TC N 1
Dimmette, James Edwin TC C 1
Dimmock, William Edward, Jr. EC N 5
Ditchik, Jesse TC C 2
Doggett, Lewis Carpenter TC C 2
Doig, William Dunsmore TC C 6
Dolt, William Sherman TC C 3
Domnelly, Charles Ellis EC N 5
Donoghue, John Joseph TC C 4
Donovan, John Aloysius TC N 0
Dorsey, John Patrick TC N 5
Dorsey, William R. TC N 6
Dorton, Spero Pete TC C 7
Doty, Robert McCurdy TC C 1
Douglas, Richard Sands TC C 4
Dowe, Carl Barnard TC C 6
Downes, Charles Slingluff TC C 4
Doyle. William Joseph EC C 2
Drabent, Eugene A. TC N 7
Drake, David Ewing TC C 5
Drake, Edward Stanley TC C 4
Drake, John C. TC C 3
Drewry, William Shepherd TC C 2
Drumm, James Clifford TC C 0
Dudley, Frank T. TC C 0
Dunaiski, Raymond Martin EC N 7
Duncan, William Lewis TC C 3
Duncan, Wofford Franklin TC N 0
Dunlop, Arthur Wellesley, Jr. TC C 0
Dunn, Albert Wilkerson TC C $71 / 2$
Dunn, Earl T. EC C 2
Dunn, Harvey Esterly TC C 7
Dunply, James McGaughey TC N 5
Durham, Gilbert Vincent TC C 3
Dye, John F. TC C 4
Earhart, Hilas Clyde, Jr. TC C 5
Early, Bert H. TC C 6
Earnest, Alfred Burks TC C 2
East, Albert Daniel TC N 4
Edgeman, William M. TC N 0
Edmonds, Eugene Gardner TC C 1
Edris, Warren Peter TC C 4
Edwards, Arthur Anderson EC N 5
Edwards, John Springstead TC C 2

Waynesboro, Va.
Bronxville, N. Y.
Indianapolis, Ind.
Morganton, N. C.
Newark, N. J.
Fort Sill, Okla.
Elba, Ala.
Asheville, N. C.
Pensacola, Fla.
Millersburg, Pa .
Newton Square, Pa.
Burgettstown, Pa.
Hinsdale, Ill.
Canton, Ohio
Nashville, Ga.
Culumbus, Ga.
Monroe, N. C.
Laurel Hill, N. C.
College Park, Ga.
Brooklyn, N. Y.
Greenwood, S. C.
Packanack Lake, N. J.
Plainfield, N. J.
Savannah, Ga.
Wood Ridge, N. J.
Jamaica Plain, Mass.
Columbus, Ohio
Pittsburgh, Pa.
Durham, N. C.
Lakewood, Ohio
Westfield, N. J.
Norfolk, Va.
Baltimore, Md.
North River, N. Y.
Scranton, Pa.
Knoxville, Tenn.
Raleigh, N. C.
Raleigh, N. C.
Drexel Hill, Pa.
Lancaster, Pa.
Durham, N. C.
Duluth, Minn.
Morganton, N. C.
Greer, S. C.
Miami, Fla.
Durham, N. C.
Durham, N. C.
Berks County, Pa.
Lawrenceville, Ill.
Durham, N. C.
Troy, Ohio
Louisville, Miss.
Huntington, W. Va.
Bethesda, Md.
Brandon, Miss.
Anderson, Ind.
Hampton, Va.
Long Island, N. Y.
Brooklyn, N. Y.
Savannah, Ga.
F.dwards, William Jordan, Jr. TC C 1

Edwards, William Roy TC C 0
Einbinder, Sidney TC C 1
Einhorn, Elliot J. Spec. C
Eirich, Robert Lee TC C 1
Elam, William Nile TC C 5
Eliff, John Joseph TC N 5
Ellers, Norman Lee TC C 1
Ellinor, Harry Edward TC C 4
Elliott, Escalus E. EC C 2
Ellis, John, Jr. EC N 6
Ellis, John Granbery, Jr. EC N 5
Ellison, Warren Frederick TC C 6
Ellsworth, John Charles TC C 1
Elmore, Oscar M. TC C 2
Elrod, William Alexander EC C 4
Emmons, Curtis Graham TC C 1
Engel, Marvin F. TC C 1
Epps, George F. EC N 5
Epstein, Gordon V. TC N 5
Erickson, John Stuart TC C 0
Erickson, Walter Bede TC C 1
Evans, Burt TC C 5
Evans, Harold David TC C 2
Evans, Paul Franklin, Jr. TC C 2
Evans, Warren G. TC C 0
Everhard, Will Duguid TC C 2
Ezell, John W. TC C 7
Ezerski, Frank Peter TC C 6
Fairey, Robert Lewis TC C 2
Fairy, William Arthur TC C 7
Fanjoy, Weldon Sutherland TC C 2
Farrell, Paul Harry TC N 0
Faulconer, John Reynolds TC C 0
Faulkner, Doc George, Jr. EC N 5
Featherston, Alwyn Louis TC C 0
Feder, Richard Yale TC C 2
Felgar, Thomas Oglesby TC C 6
Felton, Joseph P. EC C 6
Ferdinand, Thomas Francis EC C 5
Ferguson, Garnett Lane, Jr. EC N 5
Ferguson, Junious Franklin TC C 1
Ferris, Fred I. E. TC C 4
Fetherston, Joseph Austin TC N 5
Fetner, Donald Hughey TC C 1
Fieldson, Jack Wilbur TC C 3
Finch, Donald Curtiss TC C 5
Findley, Joseph Kermit EC N 5
Fine, Ephraim Allan TC C 4
Fink, Chester Walter TC C 5
Fishe, Gerald Raymond A. EC C 2
Fisher, Robert Joseph TC C 1
Fitzpatrick, Julius Way TC N 7
Flagg, Raymond A. EC C 4
Flanders, Charles H. TC C 1
Fleming, Berkley Talmadge TC N 5
Fleming, James Carlton TC C 2
Fletcher, Thomas Gibson TC C 5
Fletcher, Westwood H., Jr. TC C 1
Flynn, Arthur James TC N 5

Weldon, N. C.
Durham, N. C.
Columbia, S. C.
Durham, N. C.
Baltimore, Md.
Washington, D. C.
Bridgeport, Pa.
Wilmington, N. C.
Havana, Fla.
Washington, D. C.
Pass Christian, Miss.
Richmond, Va.
Hinton, W. Va.
New Orleans, La.
Lincolnton, N. C.
Chadbourn, N. C.
Asbury Park, N. J.
Atlantic City, N. J.
Athens, Ga.
Houston, Texas
Bay Shore, N. Y.
Bay Shore, N. Y.
Allantic City, N. J.
Elloree, S. C.
Lexington, N. C.
E. Laurinburg, N. C.

Harrisburg, Pa.
Plymouth, N. C.
Monessen, Pa.
Durham, N. C.
Burlington, N. C.
Statesville, N. C.
Brighton, Mass.
Washington, D. C.
Nashville, Tenn.
Orlando, Fla.
Closter, N. J.
Jacksonville, Ala.
Durham, N. C.
Newark, N. J.
Atlanta, Ga.
Durham, N. C.
Scarsdale, N. Y.
Purt Washington, N. Y.
Durham, N. C.
McKees Rocks, Pa.
New Haven, Conn.
Browton, Ala.
Baltimore, Md.
Durham, N. C.
London, England
Athens, Tenn.
Cape May Ct. House, N. J
Durham, N. C.
Durham, N. C.
Cruger, Miss.
Martinsville, Va.
McColl, S. C.
Bradenton, Fla.
Pittsburgh, Pa.

Flynn, Wilson P. TC C 1
Fogleman, Lindsay Lother EC C 2
Foister, Thomas Welch TC C 1
Forbes, Donald Beamer TC C 2
Ford, Alfred Gust TC N 6
Forrest, Otto Norman TC C 1
Fortner, Lloyd Bruce TC C 0
Foshee, Charles Newell TC C 5
Foster, Jack TC C 2
Foster, James Troy TC N 5
Foster, William Phillips EC C 7
Fourman, Gordon Dale TC N 2
Fowler, Warren Dean, Jr. TC C 2
Fox, John Lynn TC N 5
Foy, Thomas Franklin EC N 5
Francis, Everett W. TC N 6
Frase, Ronald Glen TC N 7
Freelin, Raymond Keith TC N 5
Freeman, John Collins TC C 2
Freeman, Thomas Franklin TC C 7
Freeze, Jack Edward EC C 3
French, Charles Graves EC C 9
Frey, John M. TC C 2
Friauf, Robert James TC N 5
Friedli, Ernest Karl EC N 6
Friend, Fred Erwin TC N 5
Frisch, Joseph EC C 7
Fritts, Ralph Austin TC N 2
Fritz, Albert Robert TC C 4
Frye, Jerry L. TC C 1
Frye, Robert Dan TC C 2
Fuchs, Francis Joseph EC C 4
Fugale, Frank William TC N 5
Fulp, Kenneth E. TC C 0
Funk, Frank Richard TC N 0
Funk, Muncy E. TC C 1
Gabellini, John Joseph TC N 5
Gaffney, Arthur Francis (Auditor) Spec. C
Galloway, Ray Mayer TC N 7
Gamble, Bryant Oswald TC C 3
Gannon, Harry M. TC C 6
Gannon, John Joseph TC N 2
Garber, Mark Edward TC C 1
Garcia de Quevedo, Guillermo TC C 4
Gardinier, Richard John TC C 0
Gardner, Robert R. TC N 5
Gari, Ralph TC N 0
Garland, Samuel A. TC C 4
Garrett, Frank TC C 6
Garside, Joseph Junior TC N 5
Garthe, Henry Carl TC N 5
Gartner, Walter Bertram TC N 0
Gatling, James Edward TC C 2
Gatling, Wilfred Commander, Jr. TC C 0
Gattis, Walter R., Jr. TC C 7
Gautier, Elmer Henry, Jr. EC N 3
Geier, John Joseph EC N 7
German, Paul M. TC C 7
Gibson, Charles Irvin EC N 5
Gibson, George Clifford TC C 1
W. Haven, Conn.

Durham, N. C.
High Point, N. C.
Parkersburg, W. Va.
Jamestown, N. Y.
Washington, D. C.
Pickens, S. C.
Rocky Mount, N. C.
Denville, N. J.
Alicia, Ark.
Andover, Mass.
Knoxville, Tenn.
Red Bank, N. J.
Emlenton, Pa.
Richmond, Va.
Wilmington, Del.
Hamburg, N. Y.
Anadarko, Okla.
Evanston, Ill.
Upper Montclair, N. J.
Charlotte, N. C.
Clintwood, Va.
St. Louis, Mo.
Arlington, Va.
Brooklyn, N. Y.
Lawrenceburg, Tenn.
Durham, N. C.
Easton, Pa.
Ridgewood, N. J.
Gastonia, N. C.
Gastonia, N. C.
Greenfield, Mass.
Salem, Mass.
Florence, S. C.
Bayside, N. Y.
Woodstown, N. J.
Allentown, Pa .
Durham, N. C.
Wilmington, N. C.
Rockville Centre, N. Y.
Rockville, N. Y.
Montclair, N. J.
Carlisle, Pa.
Santruce, P. R.
Miami, Fla.
Columbia, Tenn.
Bronx, N. Y.
Salisbury, N. C.
High Point, N. C.
Fairmont, W. Va.
Baltimore, Md.
Carmody Hills, Md.
Norfolk, Va.
Suffolk, Va.
Durham, N. C.
Pascagoula, Miss.
Rochester, N. Y.
Oklahoma City, Okla.
Chicago, Ill.
Greenville, S. C.

Gibson, Norman Gilbert TC C 2
Gifford, James Hugh TC C 1
Gifford, Neil Allen TC C 1
Gilbert, Edwin Glenn, Jr. TC C 1
Gilbert, Olin Englar, Jr. EC N 5
Gilbertson, John Robert TC N 2
Gill, Robert C. TC C 2
Gillette, John Burton TC C 2
Gilliam, Robert Laurence EC C 2
Gilliland, John Hershal TC N 2
Gimler, John Robert TC C 1
Given, Joseph Hampton TC C 1
Gladden, Alton Arnold, Jr. TC C 5
Glazer, Jack Henry TC N 0
Gleason, John Henry TC C 0
Glover, Horace Sluman EC N 6
Goldenberg, Jaime EC C 7
Goldsmith, Edward Gordon EC N 5
Goley, Willard Coe TC C 2
Goode, George Edgar TC N 2
Goodfellow, Murray Fickes TC C 2
Goodman, Bruce Kay TC N 5
Goodson, Phillip Lorenzo TC C 4
Goodwill, William F. TC C 3
Gordon, Richard W. EC C 2
Gorsuch, Thomas L. TC C 4
Goss, Meredith Rcy TC N 5
Goss, Natale Joseph TC N 2
Graham, Harvey Polhemus TC C 0
Grainger, James Marion TC N 2
Grant, Thomas Garner TC N 5
Gray, Irving Smith EC C 4
Grayson, Allan M. EC C 6
Grayson, David Dillard EC C 2
Greco, John TC N 2
Greene, John Patterson Spec. C
Greenleaf, Thomas Raymond TC N 2
Greenman, Harlan Ray EC N 6
Greet, Thomas Ycung TC C 3
Griffin, Charles Eugene TC C 5
Griffin, Eugene Wilson EC N 5
Griffin, Eustace C., Jr. TC C 1
Griffin, Russell Edward TC N 6
Griffin, William Augustine TC C 5
Griffith, John Lafayette TC C 0
Griffith, Norman Early, Jr. TC N 5
Griffith, Richard Matthews, Jr. TC N 5
Griffith, William Jackson TC N 0
Grigg, Womble Quay TC C 1
Grimes, David C. TC N 5
Grissett, John Eliot TC N 5
Griswold, Lyman William TC N 1
Groff, Allan William TC C 3
Groome, James Hunter TC C 1
Groome, Roland Carlyle TC C 8
Grose, George B. TC C 3
Groshens, David Eldridge, Jr. TC C 1
Grover, Carl Atwood TC C 1
Gruber, Sol EC N 7
Guinee, William Fenton, Jr. TC C 1

Waycross, Ga.
Cherry Point, N. C.
Estill, S. C.
Atlanta, Ga.
Baltimore, Md.
Roslindale, Mass.
Pelham Manor, N. Y.
Wilson, N. C.
Winston-Salem, N. C.
Utica, Pa .
Eernardsville, N. J.
Durham, N. C.
Annapolis, Md.
Bronx, N. Y.
Coral Gables, Fla.
Starrucca, Pa.
Barrangvilla, Colombia
Tampa, Fla.
Graham, N. C.
Memphis, Tenn.
Hianover, Pa .
Highland Park, Ill.
Greenville, N. C.
Miami, Fla.
Jacksonville, Fla.
Baltimore, Md.
Seiling, Okla.
Pittsburgh, Pa.
Durham, N. C.
Louisburg, N. C.
Tulsa, Okla.
Freeport, N. Y.
Dallas, Texas
Dallas, Texas
Hewlett, N. Y.
Jacksonville, Fla.
Downingtown, Pa.
Durham, N. C.
Greenville, S. C.
Durham, N. C.
Hamlet, N. C.
Fayetteville, N. C.
Battle Creek, Mich.
Durham, N. C.
Clarksburg, W. Va.
Charlotte, N. C.
Pasadena, Calif.
Ft. Thomas, Ky.
Sylva, N. C.
Newnan, Ga.
Deland, Fla.
Ridgefield Park, N. J.
Lancaster, Pa.
Greensboro, N. C.
Greensboro, N. C.
Si. Paul, Minn.
Gienside, Pa .
Altoona, Pa .
Brooklyn, N. Y.
New Orleans, La.

Gumkowski, Thaddeus Raymond TC N 0
Gurley, Elbert Luther EC C 5
Gurley, Joseph Grafton EC N 5
Habansky, Joseph Robert TC N 0
Hackett, Robert Charles TC C 1
Hackett, William E. TC C 1
Hadlock, Channing MacGregor TC C 0
Hagins, John Williams TC C 6
Haines, Robert Earl TC C 1
Hall, Charles Moore TC C 1
Hall, Earl Wayne TC N 5
Hall, Frank Dawson TC C 2
Hall, James Curtis TC N 6
Hall, Leonard Rupert TC C 3
Hall, Rudolph Hamilton TC N 6
Halliday, William Neil TC N 4
Halsey, John Jones TC N 2
Hamil, George Beno TC N 1
Hamilton, Charles Ray TC C 7
Hamilton, Neill Quinn EC N 6
Hamlin, Mervyn Ray Spec. C
Hampton, William E. EC C 4
Hance, Harry T. TC C 6
Hancock, Bob Noel TC N 1
Hancock, William Frederick TC C 0
Hand, Edgar Hall TC C 2
Haney, John Norman EC N 5
Hanna, Philip Sidney, Jr. TC N 5
Hanni, Herman Squire TC N 6
Hanson, Charles Andrew TC C 3
Hanson, Earl Clarence TC N 2
Hanson, John Gilbert TC N 0
Haralson, Prescott H. TC C 6
Harang, Jacques Pierre TC N 2
Hardee, E. Bacon, Jr. TC C 1
Harden, Milton Ray EC N 5
Hardigree, Sidney Curtis TC N 6
Hardman, Wallace Jackson EC N 5
Harrill, James C. TC C 1
Harrill, Ulysses Janson TC C 3
Harrington, Joseph S. TC C 7
Harris, Allan Richard TC C 1
Harris, Guy Leslie, Jr. TC C 6
Harris, Thomas Burrell TC C 2
Harriss, Clyde Hampton TC C 2
Hart, James Everette TC C 2
Hartung, Francis Conrad, Jr. TC N 2
Harvey, Frank Herbert TC N 2
Harvey, John Richard TC C 5
Harwood, Frederick W. TC C 2
Haskins, Dennis Button TC N 1
Hastings, Richard Owen EC N 6
Hatcher, Edgar A. TC C 5
Hatcher, Jack Clayton TC C 2
Haun, Warren Scott EC N 5
Havens, Robert S TC N 5
Hawes, Raymond Burke TC N 2
Hawkins, Donald Floyd TC N 5
Hawkins, James Robert TC C 1
Hawkins, James Wendell TC C 2

Branford, Conn.
Lenoir, N. C.
Richmond, Va.
Bridgeport, Conn.
Philadelphia, Pa.
Philadelphia, Pa.
Stanton, N. J.
Johnstown, Pa.
Catskill, N. Y.
Elizabethtown, N. C.
Oklahoma City, Okla.
Coral Gables, Fla.
Galax, Va.
Bristol, Va.
Danigren, Va.
Columbus, Ohio
Southampton, N. Y.
「roy, Ala.
Arlington, Va.
Pittsburgh, Pa.
Stockton, Calif.
Durham, N. C.
Westerville, Ohio
Anchorage, Ky.
Tampa, Fla.
Pineville, N. C.
Grandview, W. Va.
Hinsdale, Ill.
Painesville, Ohio
Geneva, Ill.
Cranston, R. I.
Brooklyn, N. Y.
Durham, N. C.
New Hyde Park, N. Y.
Durham, N. C.
Durham, N. C.
Athens, Ga.
Charleston, W. Va.
Gaffney, S. C.
Gaffney, S. C.
Wilmington, Del.
Milton, Mass.
Warren, Ohio
Charlotte, N. C.
Salisbury, N. C.
Waycross, Ga.
Dhiladelphia, Pa.
Bronx, N. Y.
Rahway, N. J.
Longmeadow, Mass.
Chattanooga, Tenn.
Chattanooga, Tenn.
High Point, N. C.
Norton, Va.
Memphis, Tenn.
Jordan, N. Y.
Northport, N. Y.
Tustin, Calif.
Mebane, N. C.
Kingsport, Tenn.

Hawkins, John Baxter, Jr. TC N 1 Haworth, Everett Alvin TC N 2 Hay, Richard Warren TC N 2 Hayes, Clyde Carlton TC C 0 Hayden, Daniel Lee TCC 5 Hayes, Edward Richard TC C $11 / 2$ Hayes, Leonidas Braxton TC C 5 Hazlitt, John Madden, Jr. TC N 5 Heald, James Hamilton TC N 5 Heebink, David Van Driest TC N 2 Heffiner, James Jeffries TC N 6
Helgason, Hordur TC C 7
Helm, Carl Edward, Jr. TC N 2 Helms, William Kendall, Jr. TC C 0 Hendricks, Frederick Richard TC C 1
Hendrickson, Bartlett Roy TC C 1 Henkel, Lee Hampton, Jr. TC C 0 Henry, Norman A. TC N 5
Henry, William Theron EC N 5 Herlong, Bettis Grigsby TC C 1 Herrick, John W. TC C 1 Herrington, Robert Earl TC C 1
Herriott, Donald Richard TC N 2 Herrmann, Melvin Richard TC C 0
Hersman, George J. EC C 7
Hess, Donald Gilbert TC C 1
Hewett, Jack Herbert TC N 5
Hickerson, John Hightower TC C 2
Hicks, Julius Norton TC C 1
Hill, Charles Edward EC N 5
Hill, James Gilland TC C 5
Hill, Joseph Emmett TC N 1
Hill, Ralph F. TC C 1
Hillman, Edgar Lafayette TC C 2
Hine, Harold Kirkham TC C 1
Hines, Gulmer A., Jr. TC C 2
Hines, Paisley Turner, Jr. TC C 2
Hinman, Donald Livingston TC C 1
Hinnant, Harvey J. TC C 4
Hinson, Garland Theodore TC C 1
Hipp, Charles Rucker EC C 3
Hipps, Herbert Greene TC C 2
Hodges, Charles Roland TC C 2
Hodges, William Starnes TC C 1
Hodgin, Lyman Edward TC C 6
Hodgkins, Lewis TC C 2
Hodgkins, Norris Lowell TC N 6
Hoffman, Arthur C. TC C 4
Hofmeister, George Carl EC N 6
Hogan, John Thomas TC C 2
Hogan, Joseph Herbert TC C 0
Hogg, Harold Hubert TC C 2
Hoke, George Clayton EC C 5
Hoke, John Humphreys TC N 6
Holbrook, Harold Douglas EC C 2
Holder, Clarence Perry EC N 7
Holland, Kenneth Alphonse TC C 7
Holley, Charles Richard TC C 2
Holley, Horace Preston TC C 2
Holloway, Fuller TC C 2

Cowan, Tenn.
New York, N. Y.
Roslyn, Pa .
Rock Hill, S. C.
Huntington, IV. Va.
Lewiston, Maine
Thomasville, N. C.
Pauls Valley, Okla. River Forest, Ill.
Morganton, W. Va.
Richmond, Va.
Reykjauik, Iceland
Shelton, Conn.
Columbia, S. C.
Matewan, W. Va.
Washington, D. C.
Charleston, IV. Va.
Williamsport, Pa.
Arlington, Va.
Saluda, S. C.
Washington, D. C.
New Bern, N. C.
Chatham, N. J.
Pittsburgh, Pa.
Grand Rapids, Mich.
Farmington, Utah
Durant, Okla.
Washington, D. C.
Enterprise, Ala.
Ridley Park, Pa.
Bronxville, N. Y.
Tampa, Fla.
Hendersonville, N. C.
Rocky Mount, N. C.
Bridgeport, Conn.
Rutherfordton, N. C.
Greensboro, N. C.
Oswego, N. Y.
Raleigh, N. C.
Whiteville, N. C.
Greensboro, N. C.
Greensboro, N. C.
Ft. Lauderdale, Fla.
Dresden, Tenn.
Charlotte, N. C.
Southern Pines, N. C.
Southern Pines, N. C.
Highland Park, Ill.
Pittsburgh, Pa.
Durham, N. C.
Durham, N. C.
Uniontown, Pa.
Claremont, N. C.
Rossford, Ohio
Kannapolis, N. C.
Blakely, Ga.
Memphis, Tenn.
Ocald, Fla.
Aiken, S. C.
Durham, N. C.

Holmes, Brandon McConnell EC N 6
Holmes, Edgar Alburn TC C 4
Fiolmes, Irvis Alvin, Jr. TC C 1
Holroyd, William Casper, Jr. TC C 5
Holt, Bevley Dan EC N 5
Holt, Duncan Waldo, Jr. TC C 7
Holt, Robert Terrence TC C 4
Holton, Holland Spec. C
Holzinger George C. TC C 2
Hood, Howard James TC C 1
Hooker, Raymond Cottrell, Jr. TC C 5
Hooper, Clifford Harold TC C 0
Hopkins, John James TC N 2
Hoppin, Stuart Bliss TC C 1
Horan, John Edward, Jr. TC N 2
Horn, Robert Campbell TC N 2
Horn, William Carl TC N 7
Horowitz, Nathan TC C 3
Houtz, Jesse Frank TC C 4
Howe, William Bell White, Jr. TC C 2
Howell, Alfred Gordon TC N 7
Howell, Donald Willard TC C 3
Howerton, Thomas Royster TC C 7
Hruby, Don James TC N 1
Hubbell, Jay B., Jr. Spec. C
Huckabee, Robert C. TC C 2
Hudgins, Thomas Frederick, Jr. TC C 5
Hudson, Fitzgerald S. EC C 7
Hudspeth, Thomas Harold TC N 2
Huelser, George Wells TC C 5
Huey, Henry Jeremiah, Jr. TC N 1
Hughes, John Mitchell TC C 4
Hughes, Lawrence Josiah TC N 6
Hughes, William James EC C 2
Hull, Ezekiel H. TC C 5
Hull, Robert Harrison TC C 1
Humphrey, Earl Lester TC N 0
Humphries, Bishop Marvin TC C 4
Hunt, Francis Milton TC C 2
Hunt, Raymond James TC N 7
Hunter, Jack Watkins EC C 2
Hunter, William C., Jr. EC N 5
Hurm, Hermann TC N 0
Hutchinson, Ronald Lee EC C 7
Hutton, William Caldwell EC N 5
Hyatt, Edward TC C 0
Hyman, Mac Hooks TC C 6
Inabinet, William Morris TC N 5
Ingber, Lawrence Ira TC C 1
Ingram, Samuel Turner TC C 1
Ingram, Stuart Iverson TC C 3
Inman, Charles Ernest TC C 5
Ireland, Cambridge H. TC C 4
Irlbacher, John M. EC C 3
Irwin, George Leigh TC C 2
Irwin, Robert Latta TC C 5
Isenhour, Dwight Lyman TC C 0
Jackson, Delwood S. TC C 2
Jackson, Harold Mackenzie EC C 2
Jackson, John J. EC C 2

Statesville, N. C.
Newport News, Va.
Newport News, Va.
Greenwood, S. C.
Milan, Tenn.
Greensboro, N. C.
Beckley, W. Va.
Durham, N. C.
Larchmont, N. Y.
Chaptico, Md.
Richmond, Va.
Asheville, N. C.
Flushing, N. Y.
Framingham, Mass.
Danbury, Conn.
Manhasset, N. Y.
Elmhurst, Ill.
Wilmington, N. C.
Fayetteville, N. C.
Hendersonville, N. C.
Howison, Miss.
Jacksonville, Fla.
Durham, N. C.
Harvey, Ill.
Durham, N. C.
Durham, N. C.
New York, N. Y.
Montgomery, Ala.
Yadkinville, N. C
Staten Island, N. Y.
Milan, Tenn.
Pittsburgh, Pa.
Fowler, Ill.
Baltimore, Md.
Reidsville, N. C.
Charlotte, N. C.
Sangerville, Me.
Charlotte, N. C.
Danville, Ky.
Chicago, Ill.
Durham, N. C.
Portsmouth, Va.
Philadelphia, Pa .
Duncan, W. Va.
Collierville, Tenn.
Asheville, N. C.
Cordele, Ga.
Monroe, La.
Cynwyd, Pa.
Taylorsville, N. C.
Greensboro, N. C.
Fairmont, N. C.
Lexington, Ky.
Mamaroneck, N. Y.
Chester, S. C.
Oklahoma City, Okla.
Taylorsville, N. C.
Durham, N. C.
Charlotte, N. C.
Larchmont, N. Y.

Jackson, Lowell Kobert TC N 5
Jackson, Philip Wilford TC C 1
Jackson, William Hutchinson TC C 1
Jacokes, Paul Webb TC N 0
Jakob, Werner Leonard TC C 5
Jamieson, William Harry EC C 4
Jarvis, George Robert EC N 5
Jarvis, Hallett Ward TC C 7
Jenkins, Martin Edward TC C 1
Jenks, Robert Henry TC N 2
Jennings, Robert Hastine TC C 4
Jennings, William Beatty, Jr. TC C 2
Jett, Charles Edward TC C 6
Jett, David Hamilton TC C 2
Johns, William Gordon TC N 0
Johnson, Charles Thomas TC C 4
Johnson, Eugene Blair EC C 4
Johnson, Glenn Wilson TC C 2
Johnson, Joseph Edwin EC C 4
Johnson, Marshall Howard TC C 0
Johnston, Butler Louis TC C 6
Johnston, David Hale TC C 1
Johnston, Leon Mack TC C 8
Johnstone, George Harvey TC N 1
Jones, Bruce Redmond TC N 2
Iones, Donald Richard TC N 1
Jones, Edward Benjamin TC C 3
Jones, Edward Earl TC C 1
Jones, Edwin Lee EC C 4
Jones, George Poole TC C 2
Jones, Howard Bird TC C 3
Jones, John TC C 5
Jones, John Pasco TC C 6
Jones, John Paul TC N 1
Jones, Theodore William TC N 0
Jordan, Samuel Clifford EC C 9
Josey, John Speir TC C 6
Joyce, John Stuart TC C 4
Judge, Richard B EC N 6
Juengel, Raymond Edward TC N 0
Kagarise, Ronald Eugene TC N 5
Kalb, John Floyd, Jr. TC N 2
Kalkbrenner, William Adam TC C 0
Kamstra, John Adrian TC N 2
Karmatz, Franklin N. TC N 2
Karmazin, John TC C 1
Kasparian, Robert TC N 6
Kaus, Tyler Garretson TC C 1
Kea, Kirk Ira, Jr. EC N 6
Keith, Hudie Clellan TC C 0
Keller, Thomas W. TC C 7
Kelley, Frederick Edward TC N 2
Kelley, Stanley Orman TC C 1
Kelley, Warren James TC C 3
Kelly, Francis E., Jr. TC C 4
Kelly, Junius Clyde Spec. C
Kendrick, Oliver Scruggs TC C 1
Kendrick, William Addison TC C 6
Kennedy, Charles Ross TC N 1
Kennedy, James M. TC N 7

Salt Lake City, Utah
Johnson City, N. Y.
Sireveport, La.
Asheville, N. C.
Roselle, N. J.
Patchogue, N. Y.
Winnetka, Ill.
Charleston, S. C.
Philadelphia, Pa.
Englewood, N. J.
Orangeburg, S. C.
Fayetteville, N. C.
Elizabethton, Tenn.
Baltimore, Md.
Jacksonville, Fla.
Red Springs, N. C.
Brooklyn, N. Y.
Greensboro, N. C.
Branchville, N. J.
Brooklyn, N. Y.
Salisbury, N. C.
Roper, N. C.
Durham, N. C.
Knoxville, Tenn.
Springfield, N. J.
Cinattanooga, Tenn.
Glenshaw, Pa.
Durham, N. C.
Charlotte, N. C.
High Point, N. C.
Clearwater, Fla.
Eile, Pa.
Altoona, Fla.
Phil Campbell, Ala.
Brooklyn, N. Y.
Macon, Ga.
Bartow, Ga.
Elmira, N. Y.
Wilmington, Del.
Minneapolis, Minn.
Roaring Spring, Pa.
Kittanning, Pa .
Philadelphia, Pa.
Ridgewood, N. J.
Highland Park, N. J.
Irwin, Pa .
Youngstown, Ohio
Rye, N. Y.
Richmond, Va.
Durham, N. C.
LaGrange, Ill.
New Bedford, Mass.
Gainesville, Fla.
New Canaan, Conn.
Johnstown, Pa.
Greensboro, N. C.
Sylacanga, Ala.
Saginaw, Mich.
Huntsville, Ala.
Granite Quarry, N. C.

Kent, Richard Thursby TC C 5
Kernodle, John T. TC C 5
Kerr, George Thomas TC C 1
Ketchem, Vern Albert TC C 6
Kidd, Charles Wyndham TC C 6
Kilburne, Richard Francis TC C 3
Kimbrell, Odell C., Jr. TC C 5
Kimpflen, Joseph F. EC N 6
Kindler, Jack TC C 2
King, James Neal TC C 4
King, Parks McCombs, Jr. TC C 4
Kingery, L. Byron Spec. C
Kingery, Robert Elliott TC C 2
Kinney, Rothwell Jay TC C 5
Kirby, Robert William TC C 1
Kirchner, Leo Gerard TC N 2
Kirgin, Kenneth Halowell TC N 0
Kirk, Robert Louis TC C 7
Kirkland, Otis Decator TC C 0
Kirkpatrick, Ronald Eugene EC N 5
Kirkwood, Philip L. TC C 6
Kirsnis, Edmond Robert TC C 5
Kish, Andrew John TC C 0
Klause, Joseph Edward TC N 2
Klein, Morton EC N 7
Kleist, Roy Franklin TC N 6
Kloss, Lester K. TC N 6
Knaepen, Henry Joseph TC N 2
Knight, Roland McKitrick TC C 2
Knott, Gerald Wesley TC C 1
Koenig, Elmer August EC C 7
Koffenberger, Edward L. EC N 6
Kohler, John Dawson TC N 2
Kowalski, Ludwig Robert EC N 5
Krell, A. Douglass TC C 1
Krieger, Walter Frank TC C 0
Krisza, John, Jr. TC N 7
Kritzer, Richard Gaul TC N 2
Kruse, Richard Harry TC C 2
Kunkle, Craig B. EC C 3
Kunkel, Harry Edward TC N 2
Kyle, Joe Merrill TC C 3
Lacey, James Robert TC C 1
Ladd, Richard F. EC N 3
Ladshaw, Thomas Gordon, Jr. TC C 2
Lager, Herbert TC N 1
Lamotte, Louis C. TC C 4
Lamparter, William Smith TC C 7
Lampson, James LeRoy TCN 0
Land, Morton Lewis TC C 5
Landon, Horace Gordon TC C 2
Landreth, Kennetlı Carlos TC N 1
Lane, Douglas Henry TC N 1
Lane, Harold Compton TC C 1 Langen, Robert Francis TC C 2
Langford, Thomas C., Jr. TC C 4
Lantz, William McGowan TC C 1
Larkin, Israel Shirk EC N 6
Latimer, Starr Orion EC N 6
Latkowski, Norbert Leon TC N 5

Carbondale, Pa.
Durham, N. C.
Durham, N. C.
Cleveland Heights, Ohio
Atlee, Va.
Rochester, N. Y.
Durham, N. C.
Philadelphia, Pa.
Passaic, N.J.
Durham, N. C.
Charlotte, N. C.
White Plains, N. Y.
White Plains, N. Y.
Oregon
Spencer, N. C.
Lancaster, Pa.
Mt. Vernon, N. Y.
Philadelphia, Pa.
Durham, N. C.
Covington, Ky .
Wildwood, N. J.
Paulsboro, N. J.
Pittsburgh, Pa.
Philadelphia, Pa.
New York, N. Y.
Waterbury, Conn.
Sharon, Pa.
Ridgewood, N. J.
Belton, S. C.
Oxford, N. C.
Libertyville, Ill.
Wilmington, Del.
Westfield, Mass.
Belleville, N. J.
Memphis, Tenn.
Piainfield, N. J.
McKees Rocks, Pa.
Indiana, Pa .
Richmond, Va.
Johnstown, Pa.
Verona, Pa.
Takoma Park, Md.
Newark, N. J.
Tulsa, Okla.
Spartanburg, S. C.
Bronx, N. Y.
Maxton, N. C.
Highland Park, N. J.
Berkeley Springs, W. Va.
Baltimore, Md.
Eden, N. Y.
Pikeville. Tenn.
Passaic, N. J.
Rutherfordton, N. C.
Cedar Lake, Ind.
Orangeburg, S. C.
Elmira, N. Y.
Willard, Utah
St. Petersburg, Fla.
Chicago. Ill.

Lau, John Leslie TC C 2
Lawandales, Andrew Frank EC C 2
Lawendowski, John Jacob TC N 0
Lawless, Joseph Thomas EC N 5
Lawrence, Wilbu: Hook TC N 3
Lawson, Thomas T. TC C 5
Lawton, Robert O. TC C 6
Lawton, Thomas Oregon TC C 4
LeBrock, Russell, Jr. EC N 5
Lee, Frank Hackney TC C 3
Lee, James Harold TC C 5
Lee, Robert Edward, Jr. EC C 4
Leggett, Wilbur Pliilmon TC C 1
Legore, Norman Chester TC C 1
Leinung, John Gustave TC N 5
Leisy, Melvern K. Spec. C
Leitner, Paul R. EC C 2
Leitzinger, William A. E. TC N 2
Lemmon, John Parke, Jr. TC N 5
Lenhart, Arthur Tennyson, Jr. TC N 2
Leonhard, John Frederick TC C 2
Lerner, Mart William TC N 5
Levin, Burton Ernest TC C 2
Levin, David Harold TC C 2
Levy, John Albert TC C 3
Lewis, Clarence L. TC C 5
Lewis, William Earl TC N 1
Lieving, Robert Edgar EC N 6
Liles, Brooks J. TC C 1
Lilly, Edward C. TC C 5
Linker, Edward Markham EC N 5
Linkous, Walter Witten TC C 1
Little, Bruce Cornell TC C 2
Little, Charles Edward TC C 6
Lipscomb, George Winfred TC C 0
Livingston, Richard M. TC C 7
Llewellyn, Linus William EC N 5
Lockhart, David Kelly EC C 7
Lockwood, Thomas George TC C 3
Loftis, Wallace Garland TC C 3
Long, Frederick LeRoy TC N 6
Long, John Courtenay TC C 1
Long, Marion LeRoy TC C 1
Longley, Clarence M TC N 6
Loomis, Robert Duane TC C 0
Lorfano, Joseph James TC N 0
Loser, Theodore Charles TC N 2
Loucks, Robert LaMonte TC C 4
Loughran, Joseph Louis TC N 5
Love, Harry James TC C 5
Love, Nash Monroe EC N 7
Love, Roderick Milnor, Jr. EC C 7
Lowe, Donald Scott TC N 7
Lowe, Elwyn Hardin EC C 2
Lowry, William John TC C $51 / 2$
Lucas, Marvin Wilson TC C 0
Lunsford, Thomas Vickers TC C 1
Luttrell, John Lore EC N 5
Lyon, George Wood TC C 0
Lyon, William H. TC C 4

Trinidad, 1; W. I.
Charleston, S. C.
Utica, N. Y.
Norfolk, Va.
Effingham, S. C.
Erwin, Tenn.
Greenwood, S. C.
Fairfax, S. C.
Hinsdale, Ill.
Wilson, N. C.
Charlotte, N. C.
Tullahoma, Tenn.
Lumberton, N. C.
Vineland, N. J.
Bronx, N. Y.
Dallas, Texas
Whiting, Ind.
Clearfield, Pa.
Wilmington, Del.
Wilmington Manor, Del.
Haledon, N. J.
Philadelphia, Pa.
Fishkill, N. Y.
Pensacola, Fla.
Rye, N. Y.
Clinton, N. C.
Knightdale, N. C.
Mason, W. Va.
Cary, N. C.
New Orleans, La.
Chapel Hill, N. C.
Havre de Grace, Md.
Durham, N. C.
Norfolk, Va.
Durham, N. C.
Hollywood, Fla.
Palm Beach, Fla.
Durham, N. C.
New Rochelle, N. Y.
Durham, N. C.
Lennon, Mich.
Hamden, Conn.
Durham, N. C.
Orlando, Fla.
Conneaut, Ohio
S. Portland, Me.

Jonestown, Pa.
Baltimore, Md.
Philadelphia, Pa.
Johnson City, N. Y.
Charlotte, N. C.
Durham, N. C.
Key West, Fla.
Jacksonville, Fla.
E. Cleveland, Ohio

Lucama, N. C.
Haines City, Fla.
Memphis, Tenn.
Laurinburg, N. C.
Creedmoor, N. C.

McAlister, Fred Ranson TC N 3
McCandless, Dean Spec. C
McCarrick, Addison Taylor EC N 6
McCarthy, Charles Vincent TC N 2
McCarthy, Edward James TC C 2
McCarthy, Robert Charles TC N 6
McClamroch, William Porter TC C 5
McClatchie, James Marsh TC N 0
McClees, Thomas Atwood EC C 5
McClements, James Burns. TC N 2
McCloskey, William Francis, Jr. TC N 6
McConnell, Forrest T. TC C 2
McConnell, John William TC N 2
McCord, Wilfred Murray, Jr. TC N 1
McCormick, Dwight Edward TC C 1
McCormick, Kenneth Lawrence TC C 2
McCracken, Harold Conrad TC N 2
McCuiston, Robert Alexander TC C 6
McCullen, Malcolm Lafayette TC C 0
McCullen, William H. TC C 2
McCully, Alvin Charles TC C 2
McCutcheon, Gordon Douglas TC C 4
McDonald, John Caldwell TC N 1
McDonald, Neil Jarvis TC C 2
McDonald, Raymond Oswald TC N 7
McDowell, Clyde Harrison TC C 0
McDowell, Theodore Noyes TC C 4
McGahan, Richard Dan TC C 1
McGahee, Wilton Clifford EC N 5
McGee, Harry Hand TC C 4
McGrane, Arthur Joseph EC C 8
McGreevey, Robert Dillon TC C 4
McGuire, Francis Darrell EC N 5
McIver, Robert Norton TC N 6
McKay, Richard Lynn TC N 5
McKeon, James K. TC C 1
McKeowen, Beverly Hicks TC N 6
McKinnon, Cyril John Spec. C
McKnight, Thomas Morton TC C 4
McLarty, Colin Slator EC N 6
McLean, Earl Daniel TC C 0
McLean, William Campbell, Jr. TC C 2
McLennan, Kenneth Robert TC N 5
McLeod, Henry Lawrence, Jr. TC C 2
McLeod, Thomas Bragg TC C 2
McMaster, Quay Williford TC C 4
McNeely, Irwin Hollar TC C 2
McNeill, Raymond Stuart TC N 2
McPartland, Francis Xavier TC N 2
McRae, Marshall T. TC C 4
Maas, John Peter TC N 2
MacArthur, David W. TC C 2
MacArthur, Eugene Robert EC C 7
MacBeth, William B. TC C 4
MacInnes, Robert Jarvie TC C 5
MacWhirter, James Evan TC C 6
Madlon, Eugene August EC N 5
Magee, William Edwin TC C 3
Magruder, Roy, Jr. TC C 2
Mahmot, Jeffer Mortiza TC N 0

Matthews, N. C.
St. John, Kan.
Philadelphia, Pa.
Beverly, Mass.
Philadelphia, Pa.
Pittsburgh, Pa .
Durham, N. C.
Middletown, N. Y.
Elm City, N. C.
Pittsburgh, Pa .
New Brunswick, N. J.
Montgomery, Ala.
Ashland, Pa.
Memphis, Tenn.
Pass-A-Grille Beach, Fla.
Media, Pa.
Douglaston, N. Y.
Winston-Salem, N. C.
Durham, N. C.
Maplewood, N. J.
Ventnor, N. J.
St. Pctersburg, Fla.
Charlotte, N. C.
Anderson, S. C.
Tampa, Fla.
High Point, N. C.
Washington, D. C.
Greenfield, Mass.
Atlanta, Ga.
Savannah, Ga.
New London, Conn.
Garden City, N. Y.
Maywood, Ill.
Richmond, Va.
Enid, Okla.
Cynwyd, Pa.
Memphis, Tenn.
Detroit, Mich.
Murfreesboro, Tenn.
Swarthmore, Pa.
Columbus, Miss.
Tampa, Fla.
Atlanta, Ga.
Johns, N. C.
Broadway, N. C.
Winnsboro, S. C.
Morganton, N. C.
Lynbrook, N. Y.
Bergenfield, N. J.
Maxton, N. C.
Georgetown, Conn.
Brighton, Mass.
Brighton, Mass.
Ventnor, N. J.
Erie, Pa.
Charlotte, N. C.
Ferdinand, Ind.
McColl, S. C.
Washington, D. C.
Derry, N. H.

Mairs, Daniel A. TC C 5
Malcolm, Robert S. TC C 6
Mallers, John David TC C 1
Malloy, Justin Warren EC N 5
Malone, Roy Paschall TC C 0
Mangum, Jack Fitch TC C 3
Manning, Lee R. TC C 3
Mappus, Theodore Tobias, Jr. TC N 6
Marchal, Lawrence Nolan TC N 6
Markey, Gerald Joseph TC N 5
Marlow, Ernest Grant TC C 1
Marshall, Ted Hall TC C 2
Marshall, Walter Ledden TC C 4
Martin, Frank TC N 0
Martin, Joel Estes EC C 2
Martin, Thomas N. TC C 3
Martin, William G. TC C 0
Martini, Robert Ernest TC N 0
Maruschak, Peter EC N 7
Marx, James Henry TC N 6
Mason, Paul Benedict TC N 2
Mason, Walter R. TC C 0
Massey, Harold, Jr. TC N 2
Masson, James E. TC C 4
Masters, Richard Warren EC N 7
Masters, William Joseph TC N 2
Matheson, J. D., Jr. TC N 7
Mathews, Vance Bert TC C 1
Mathis, William Lowrey EC N 5
Mathisen, Glenn Estes TC C 6
Matthews, Fred Rittenhouse TC N 2
Matthews, Thomas Hill TC C 2
Matzen, Robert T. TC N 6
Maupin, Charles Culberson TC N 5
Maury, Ernest, Jr. TC C 1
Mavromates, Stanley Pierre TC C 2
Maxwell, John M. TC N 3
Maxwell, John Terry TC N 5
May, Henry S. TC C 6
May, Robert Charles EC C 5
Maynard, Billy Joe TC N 0
Maynard, Laurence Page, Jr. TC C 7
Mayo, Jesse Claude TC C 1
Meade, Richard A. TC N 6
Meadows, Richard Lynn TC C 5
Meara, Robert F. TC C 2
Mebane, David Philip TC C 2
Meece, Oscar James TC N 1
Meekins, James Claiborne EC C 2
Melero, Andres T. TC C 6
Melton, Thomas Alexander, Jr. EC C 3
Meltzer, Allan Harold TC C 1
Menna, Joseph EC N 7
Menner, Francis TC C 6
Merritt, Francis Lincoln TC C 3
Merritt, MacAllister TC C 4
Mesce, Louis Michael EC C 3
Messer. Henry Davis TC S 5
Metcalf, Boyd Hendren TC C 2
Metcalfe, Bruce Arnold TC C 0

Charleston, W. Va.
Dayton, Ohio
Chicago, Ill.
Washington, D. C.
Durham, N. C.
Hamlet, N. C.
Bethel, N. C.
Charleston, S. C.
Gary, Ind.
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Camden, S. C.
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Oak Hill, W. Va.
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Benton, Pa .
Altoona, Pa .
Kaukauna, Wis.
Gloucester, Mass.
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Miami, Fla.
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Jefferson, Ga.
Darby, Pa.
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Norfolk, Va.
Glenside, Pa .
Rocky Mount, N. C.
Grand Island, Neb.
Dallas, Tex.
Caracas, Venezuela
Mt. Vernon, Ohio
Daystrom, N. C.
Pasadena, Calif.
Haw River, N. C.
Jersey City, N. J.
Matewan, W. Va.
Willamsport, Pa.
Rocky Mount, N. C.
Flint, Mich.
Knoxville, Tenn.
Glen Rock, N. J.
Fayetteville, N. C.
Kingsport, Tenn.
High Point, N. C.
Puerto Rico
Durham, N. C.
Los Angeles, Calif.
New Haven, Conn.
Irvington, N. J.
Montpelier, Vt.
Atlanta, Ga.
Newark, N. J.
Madison, Fla.
Chevy Chase, Md.
High Point, N. C.

Metcalfe, Lawrence Avon TC C 0
Middlesworth, Chester Paul TC C 2
Miles, Billy Edward TC C 0
Millar, William Imber TC C 2
Millenson, Donald Harver EC N 2
Miller, Arthur TC C 1.
Miller, James Herbert, Jr. TC C 5
Miller, Jesse Edward TC N 6
Miller, Joseph Thomas EC N 4
Miller, Norman M. TC C 5
Miller, Richard D. TC C 7
Miller, Richard Eugene TC C 4
Miller, Richard Hershey EC N 5
Miller, Richard Kendall TC N 5
Millner, Bollin Madison TC C 1
Milone, Robert Louis EC N 5
Miner, Richard Warren TC C 1
Minnotte, Albert Andrew TC C 6
Minnotte, James TC C 2
Mitchell, George William TC C 1
Mitchell, John William EC N 6
Mitchell, Raymond Warren TC N 5
Molesko, John TC C 2
Moll, Oswin William TC N 2
Montague, Richard Beasley TC C 1
Montgomery, John Dougherty TC C 0
Moore, Benson Rogers TC C 7
Moore, Donald Reese TC C 2
Moore, Edwin Gibbons, II TC C 2
Moore, Elliott L. TC C 3
Moore, John Maxwell TC C 8
Moore, Louis Doyle, Jr. TC C 5
Moore, Nelson Rist TC C 0
Moorhouse, Richard Parmelee TC C 4
Moppert, Edward Joseph, Jr. TC C 7
Morgan, James Patterson EC C 5
Morgan, Norman Kenneth TC C 6
Morrill, John Edward TC N 6
Morris, Harold Nathan TC N 0
Morris, Howard Franklin TC C 3
Morris, Robert James TC C 4
Morrison, Robert D. TC C 6
Morton, Marion Billy TC C 1
Moses, Gerald Hanson, Jr. TC C 5
Mote, Henry Kelley TC C 9
Mousmoules, James A. TC C 4
Mulhern, Patrick Joseph TC N 0
Mulligan, Alla Purse, Jr. TC C 2
Mullin, James Louis TC N 2
Mullins, Paul Reeves TC C 5
Mulvey, Edward Thomas EC C 5
Munro, Bursell G. TC N 7
Murff, James Theo EC C 5
Murphy, Alvin R. EC N 7
Murphy, James Daniel, Jr. TC N 2
Murphy, James Fred EC N 6
Murphy, William Carl TC C 1
Muscheck, Charles Otto EC N 6
Muse, John Rogers TC C 1
Musselman, William Barry TC C 3

High Point, N. C.
Statesville, N. C.
Chattanooga, Tenn.
Waynesville, N. C.
Denver, Colo.
Mt. Vernon, N. Y.
Elizabeth City, N. C.
Greenville, Fla.
Lake Charles, La.
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Great Neck, N. Y.
Chicago, Ill.
Glenside, Pa.
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Brevard, N. C.
Livingston, N. J.
Conneaut, Ohio
Pittsburgh, Pa .
Pittsburgh, Pa.
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Duluth, Minn.
Pomona, Calif.
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Quakertown, Pa.
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Ridley Park, Pa.
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Sarasota, Fla.
Charlotte, N. C.
Toccoa, Ga.
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Leonia, N. J.
Cranford, N. T.
Charleston, W. Va.
Albemarle, N. C.
Catonsville, Md.
Woodruff, S. C.
Greenshoro, N. C.
Rockville Centre, N. Y.
Larchmont, N. Y.
Albemarle, N. C.
Mt. Lebanon, Pa.
Hapeville, Ga.
Durham, N. C.
Long Island. N. Y.
Greensboro, N. C.
Morristown, Pa.
Jacksonville, Fla.
Greensboro, N. C.
Miami, Fla.
Calhoun City, Miss.
Knoxville, Tenn.
Atlanta, Ga.
Euclid, Ohio
Salisbury, N. C.
Philadelphia, Pa.
Charlotte, N. C.
S. Orange, N. J.

Myerburg, Alvin Jerome TC C 4
Myers, Donald TC C 4
Myers, John Edwin TC C 0
Myers, Raymond Walter TC N 0
Nania, John B. TC C 7
Nash, James Frank TC C 5
Nauman, Reginald Arnold TC C 5
Nawrocki, Casimir Zenon TC C 5
Naylor, William C. TC C 2
Nazor, Gordon Lang TC C 2
Neely, Aaron Buford EC N 6
Neighborgall, Roger Beckley TC C 4
Neilson, Robert Hunter TC N 2
Nelson, Clark N. TC C 6
Nelson, Norman Kent TC C 3
Nelson, Roland Hill TC C 1
Neudecker, Joseph Wheeler, Jr. EC N 5
Newcomer, Robert Eugene TC N 5
Newell, Ernest T. TC C 5
Newman, Alvin Herman TC C 4
Newman, Francis Wesley TC C 0
Newman, Hoyt Creighton TC C 0
Newman, Marvin Jerome TC N 1
Newman, Nathaniel S. TC C 3
Newton, Benjamin Francis TC N 0
Nichol, Robert Joseph TC C 4
Nichols, John Irvin TC C 4
Nicholson, Bradford L. TC C 6
Nifong, Julius Lee TC C 6
Nixon, Albert Leon TC N 2
Nizich, Frederick Mario TC N 2
Noble, Gerald S. TC C 3
Noelle, Calvin Dickson TC N 5
Nolan, Virgil A. TC C 1
Noon, Joseph F. EC N 6
Norris, Earl Jay TC C 0
Norris, Franklin Gray TC C 6
Norton, Allyn Sumner TC C 1
Norwood, Charles Allen TC C 2
Nunn, James Wilton TC N 4
Nye, Robert B. TC C 1
Nygaard, Karl Otto TC N 2
Oakley, LeRoy Peter TC N 2
O'Brien, Donald Quinby TC N 2
Ccken, Paul Jonathan Acker TC N 5
O'Connor, James B. TC C 4
Odegard, Robert Christ EC N 5
Odom, Edward Nelson TC C 5
Oenbrink, Robert Herman TC C 4
O'Leary, James Joseph TC C 1
Olive, Billy Brown EC C 3
Olive, Ryland W. TC C 1
Olson, Robert Edward TC N 2
Onderdonk, Charles Spurgeon, III TC N 2
O'Neill, David Henry EC N 5
Oosterhoudt, Allen C. TC C 4
Oppenheim, Alfred Martin TC C 2
Orange, Linwood E. TC C 4
Orrell, Marvin Lee TC C 1
Ortolí, Karl George TC C 2

Baltimore, Md.
Albany, N. Y.
Upper Montclair, N. J.
Chalfont, Pa.
Middletown, N. Y.
Aiderson, W. Va.
E. Stroudsburg, Pa.

Brockton, Mass.
Leonardstown, Md.
Ashtabula, Ohio
Cookeville, Tenn.
Huntington, W. Va.
Fair Oaks, Pa.
Boone, Iowa
West Palm Beach, Fla.
Jarratt, Va.
Memphis, Tenn.
West Monroe, La.
Clyde, N. C.
Danville, Va.
Leaksville, N. C.
Danville, Va.
Brooklyn, N. Y.
Richmond, Va.
Pelham Manor, N. Y.
St. Petersburg, Fla.
Rocky Mount, N. C.
Därien, Conn.
Rutherfordton, N. C.
Penns Grove, N. J.
Hartford, Conn.
Metamora, Ind.
Chicago, Ill.
Rome, Ga.
Baltimore, Md.
Erwin, Tenn.
Thomson, Ga.
Durham, N. C.
Raleigh, N. C.
Atlanta, Ga.
Lutz, Fla.
Fleetwood, Pa .
Dublin, Ga.
Maplewood, N. J.
Minneapolis, Minn.
Chauncey, Ga.
Chicago, Ill.
Richmond, Va.
New Albany, Ind.
New Brunswick, N. J.
Durham, N. C.
Charlotte, N. C.
Philadelphia, Pa.
Ardmore, Pa.
Memphis, Tenn.
Jacksonville, Fla.
Westfield, N. J.
Cavetown, Md.
Advance, N. C.
Bridgeton, N. J.

Orzech, Edward George TC N 2
Osborne, John Coughlin TC C 2 Osborne, Wallace S. TC C 2
Ostendarp, George William EC N 5
Otten, Henry Edward TC N 0
Paar, James Albert TC C 2
Pace, Fred Charles TC C 1
Padgett, Glenn Ernest TC C 0
Page, Allen Perley TC C 4
Palladino, Fred TC C 1
Palmer, William Jacob EC C 5
Palmer, Winston H. TC C 5
Palumbo, Edward Arthur TC C 2
Pandolfo, Patrick Anthony TC C 1
Park, Douglas Edward TC C 2
Parker, Graydon Keith TC N 2
Parker, Julian Walton TC C 2
Parker, Richard Marsh TC N 2
Parnell, James Thomas TC N 2
Parrish, Robert Henry TC C 1
Parrish, Robert H. EC C 4
Patterson, Daniel Watkins TC C 2
Pattridge, Willard Lee TC C 7
Paules, William Roger TC N 2
Peak, Preston A. Spec. N
Peake, Robert Sanders TC C 1
Pearce, William Beacham EC N 5
Peeler, Burlie Starr, Jr. TC C 2
Peeples, Paul Wiggins TC C 5
Pegues, Franklin Johnson TC C 4
Peiffer, Thomas David TC C 1
Pennington, Donald Bond EC N 7
Penske, Herbert Willis EC N 5
Perkins, Latham Robert TC N 0
Perry, Jesse Parker, Jr. TC C 7
Person, James Ellis TC C 0
Perwein, Robert Lewis EC C 5
Peterson, John L. TC N 1
Petraitis, Tony Walter EC N 6
Petree, Joe Ray TC C 6
Pettit, Thomas Kenneth EC C 4
Petty, Marion Philip EC C 4
Peyser, Joseph Leonard TC C 4
Pfeffer, Louis Roland EC C 5
Pfefferkorn, Robert Gillimer, Jr. TC C 2
Phelps, Wilfred Lockhart TC C 0
Phillips, Neal Cornelius TC N 1
Pickard, George Martin TC C 4
Pickett, Earl Judson TC C 1
Pickett, Hubert Washington, Jr. TC C 0
Pierce, Henry Jones EC C 2
Firkey, Norwood Lee TC C 0
Pitt, Jack Anderson TC N 2
Pittman, Eborn S. TC C 0
Pittman, Gurney Cameron TC C 0
Pittman, Paul Perry. TC C 2
Pitzer, George Dennis TC C 2
Pleet, Gerald Norton TC N 1
Poindexter, Edwin LaFayette TC C 1
Polayes, Irving Marvin TC C 2

Shenandoah, Pa .
Glen Burnie, Md.
Charlotte, N. C.
Baltimore, Md.
Brooklyn, N. Y.
Warren, Ohio
Philadelphia, Pa.
Marianna, Fla.
Williamsport, Pa .
Verona, N. J.
Baltimore, Md.
Bradenton, Fla.
Orange, N. J.
Vineland, N. J.
Charlotte, N. C.
Acushnet, Mass.
Durham, N. C.
Philadelphia, Pa.
Coaldale, Pa.
W. Columbia, S. C.

Ashford, Ala.
Greensboro, N. C.
Orlando, Fla.
York, Pa.
Greenville, Texas
Arlington, Va.
Greenville, S. C.
Kings Mountain, N. C.
Estill,' S. C.
Cheraw, S. C.
Hummelstown, Pa.
York, Pa.
Cheverly, Md.
Highland Park, Mich.
Hertford, N. C.
Portsmouth, Va.
San Antonio, Texas
Fords, N. J.
Chicago, Ill.
Greensboro, N. C.
Baltimore, Md.
Gastonia, N. C.
White Plains, N. Y.
St. Albans, N. Y.
Winston-Salem, N. C.
Cedar Grove, N. C.
Washington, D. C.
Charlotte, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Rocky Mount, N. C.
Westfield, N. J.
Kinston, N. C.
Durham, N. C.
Black Mountain, N. C.
Martinsburg, W. Va.
Rye, N. Y.
Greensboro, N. C.
New Haven, Conn.

Polokoff, Edwin TC C 7
Pope, James Soule TC C 2
Pope, Warren Harold TC C 5
Posner, Marvin Albert TC N 2
Post, Warren George TC C 5
Poston, Nathaniel Avent TC N 6
Potanos, John Nicholas TC C 2
Powell, Leon Williams TC C 5
Fowers, Richard Lovell TC C 2
Pratt, Edmund Taylor, Jr. EC N 5
Pressley, Lucius Crawford TC C 2
Price, Aubrey Herman TC C 1
Price, Eugene Patton TC C 7
Price, Redman Turner, Jr. TC C 1
Pries, John Jerome TC N 2
Prieto, Pedro Braga EC C 3
Proctor, James Wardwell, Jr. TC N 5
Proctor, Sidney Leroy TC C 1
Progler, Harry Smith EC N 7
Pruitt, Charles Danny TC C 5
Pruitt, John Wesley TC N 1
Ptaschinski, George Howard EC C 5
Purdy, Harold Richard TC C 0
Fursley, William Knox TC C 2
Puterbaugh, Walter Henry, Jr. TC C 3
Putman, William Munden TC C 4
Quaritius, Jack Hoffmann TC C 2
Rabin, David EC C 7
Ragsdale, Lee Morris EC N 7
Rakestraw, Robert Shannon TC C 1
Ramsey, Robert Wayne TC C 2
Ramsey, William Thaddaeus TC C 1
Randall, John William TC N 6
Rankin, William Charles EC N 5
Raper, William Burkette TC C 5
Ratcliff, James Calvin TC C 4
Rawlings, Charles Edward TC C 1
Ray, Jack Leroy TC C 1
Raymond, Harry Paul TC C 5
Reasor, James Dan TC C 1
Redding, Clyde TC C 4
Redmond, John Gerald TC N 0
Reed, James Bennett TC N 5
Register, Joseph K. TC N 6
Reid, Paul Richard EC N 7
Remer, Betram Robert EC N 7
Revel, John Frederick TC C 1
Reynolds, Hendley Stone TC C 1
Reynolds, James Taylor EC C 3
Reynolds, John Ennis TC N 2
Rhame, John Marion, Jr. TC C 1
Rhea, William Paul EC C 3
Rhine, Robert Eldon TC C 2
Rhinier, Daniel Myers TC N 0
Rhoades, Verne, Jr. TC C 4
Kice, Alonzo Douglas TC C 2
Rice, Samuel Lawrence, Jr. TC N 5
Rich, Robert Ellett TC C 1
Richeson, Raymond McGready TC C 1
Richman, Harold Morton TC C 2

Poughkeepsie, N. Y.
Louisville, Ky.
Bordentown, N. J.
Philadelphia, Pa.
Clarksburg, W. Va.
Florence, S. C.
St. Augustine, Fla.
Durham, N. C.
St. Pauls, N. C.
Elkton, Md.
Chester, S. C.
Durham, N. C.
Erwin, Tenn.
Williamson, W. Va.
Brooklyn, N. Y.
Santiago, Chile
Scarsdale, N. Y.
Durham, N. C.
Clarksburg, W. V.
Bluefield, Va.
Charlotte, N. C.
Newark, N. J.
Washington, D. C.
Clover, S. C.
Johnstown, Pa.
Miles, Texas
Rockville Centre, N. Y.
Hempstead, L. I.
Knoxville, Tenn.
Greenville, S. C.
Norfolk, Va.
Rocky Mount, N. C.
Buffalo, N. Y.
Charlotte, N. C.
Pikeville, N. C.
Winston-Salem, N. C.
Jarratt, Va.
Gadsden, Ala.
Charlotte, N. C.
Big Stone Gap, Va.
Portsmouth, Ohio
Bellaire, L. I., N. Y.
Denver, Colo.
Greenville, N. C.
St. Louis, Mo.
Miami Beach, Fla.
Charleston, S. C.
Nashville, Tenn.
Plainfield, N. J.
Vincentown, N. J.
Bishopville, S. C.
Kansas City, Kan.
Durham, N. C.
Lancaster, Pa .
Asheville, N. C.
Charleston, W: Va.
Metamora, Ohio
Washington, D. C.
Richmond, Va.
Newport News, Va.

Fidout, Robert Charles TC C 1
Riehl, William T. TC N 2
Rierson, Robert Leak TC N 2
Kigioni, Rodrigo Maroto TC C 2
Ripley, Robert Reed TC C 0
Roach, Henry Herman, Jr. TC N 6
Robbins, Charles Franklin TC C 5
Robbins, William Earnest TC N 1
Roberts, Frederick Goddard TC N 2
Roberts, Grady Leon TC N 4
Robins, James Atkins EC C 2
Robinson, Arthur Paul TC C 6
Robinson, Bruce TC C 1
Robinson, Charles A. TC C 1
Robinson, Grover Cleveland, Jr. EC N 5
Robinson, John Francis TC C 2
Robnett, Joe James TC C 1
Rodenberg, Ernest Adolph TC C 2
Rodfong, John Ruhl, Jr. TC N 2
Rodgers, James Franklin TC N 3
Roellke, Robert Louis TC C 6
Rogers, David Ball TC N 2
Roland, William E. TC N 7
Rones, James Manning TC C 1
Rose, Charles Alexander TC N 1
Rose, Harvey Allan TC N 2
Rose, Murray Fontaine EC C 7
Rosenberg, Jac Alfred TC C 3
Rosenberg, Walter Daniel, Jr. TC N 5
Rosenfeld, Leon Victor TC C 3
Rosenthal, Marvin Daniel TC C 7
Ross, Donald Melvin EC N 5
Ross, Walter Lee EC C 7
Rothey, Donald Calvin EC C 4
Rowe, Joshua Tillman EC N 7
Roxlo, William D. EC C 2
Roy, Frank Beverly, Jr. TC C 5
Roys, Roger Earle TC N 2
Rudin, Walter TC C 5
Rudisill, Michael Erastus TC C 1
Rudlin, Leonard TC C 1
Rueckert, Arthur Wilfred TC C 2
Rusher, John Lewis, Jr. TC N 7
Russell, Donald, Jr. TC C 7
Russell, George Thompson TC C 7
Rutherford, Donald Bruce TC N 2
Ryon, William Eugene, III TC N 1
Sacks, Norman Harold TC N 2
Sager, Samuel Ott TC C 0
Sailer, Rowland Waiter TC C 7
Sale, Edward D. TC C 4
Salisbury, Richard Millious TC N 2
Sammons, Carson Hughes TC N 7
Sampson, Lufkin Clark TC C 0
Sanborn, Richard T. TC C 3
Sanford, Glen Murray TC C 3
Sapp, Carl Freeman TC C 0
Sapp, Earle Walter, Jr. TC N 6
Satlof, Melvin G. TC N 7
Saunders, Daniel Stephan TC N 0

Pelham Manor, N. Y.
Richmond Hill, L. I., N. Y.
Charlotte, N. C.
Costa Rica
Durham, N. C.
Raleigh, N. C.
Glenora via Dundee, N. Y.
Bynum, Ala.
Princeton, N. J.
Pampa, Texas
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Laurel, Del.
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Durham, N. C.
Charleston, S. C.
Midland, Pa.
Statesville, N. C.
Maplewood, N. J.
Morristown, Pa.
Johnson City, Tenn.
High Point, N. C.
Wilmington, N. C.
Altoona, Pa.
Durham, N. C.
New Orleans, La.
Norfolk, Va.
Fdyetteville, N. C.
Baltimore, Md.
Baltimore, Md.
Baltimore, Md.
Elizabeth, Pa.
Baltimore, Md.
Charlotte, N. C.
Watertown, Tenn.
Meriden, Conn.
New York, N. Y.
Gibsonville, N. C.
Richmond, Va.
Dunkirk, N. Y.
Salisbury, N. C.
Hamden, Conn.
Hamden, Conn.
Swarthmore, Pa.
Winston-Salem, N. C.
Flushing, N. Y.
Danville, Va.
Philadelphia, Pa.
High Point, N. C.
Juliustown, N. J.
La Grange, Ga.
Morehead City, N. C.
East Orange, N. J.
Lake Wales, Fla.
Raleigh, N. C.
Washington, D. C.
Albany, Ga.
Jacksonville, Fla.

Savitt, Allen Jack TC C 2
Sayre, Clifford LeRoy, Jr. EC N 5
Scafuro, Angelo Charles TC C 1
Scarrow, Howard Albert TC C 1
Schaad, Herbert Howard, Jr. TC N 0
Schaad, John Henry TC N 1
Schaefer, Edmon DeShon TC C 4
Schaffer, John James TC N 2
Schaller, Howard G. TC C 3
Scharf, Benjamin TC N 2
Schenck, David EC N 5
Schick, Philip M. TC C 2
Schilling, Harry John TC N 3
Schlie, Roland Wendal EC N 7
Schlieder, John Richard TC C 1
Schmahl, Frank D. TC C 0
Schmidt, Clifford William TC N 2
Schmidt, Richard Sheldon TC N 5
Schneider, Walter H. EC C 6
Schrauth, George M. TC N 2
Schriever, John Henry TC C 5
Schutz, Edgar Kenneth TC N 6
Schwartz, Richard Daniel EC N 7
Scioscia, Louis Thomas TC C 1
Scott, Clifford Young TC N 2
Scott, Frank Alexander TC C 1
Scott, Harold Eugene TC C 1
Scott, Howard Blake TC C 5
Scott, James Herbert TC N 2
Scott, John Luby, Jr. TC C 3
Scott, Robert Lorne TC N 5
Scott, Samuel Harper TC N 1
Scott, Walter Thomas TC N 7
Scupine, William Frederick TC C 3
Seabolt, Oliver Jchnson, Jr. TC C 0
Searcy, Henry Martin TC C 3
Sears, Kenneth Louis TC C 9
Seay, James Lee TC C 4
Selfridge, James H. TC C 5
Semmes, Granville Martin TC N 5
Seward, John Evans TC C 6
Sexton, Carroll Lewis TC N 1
Shaffer, John Taylor TC C 3
Shane, Robert B. TC C 3
Shank, Ellsworth B. TC N 2
Shankle, Claude Harold TC C 0
Shankweiler, Fred L., Jr. TC C 2
Shapiro, Lewis TC C 2
Shapiro, Oscar William TC C 4
Sharpe, Albert McDavid TC C 1
Sharpe, Edward Robbins TC C 3
Sharpe, James Browne TC C 4
Shaudys, Vincent Kirkbride TC N 1
Shaw, Edward Donald TC C 2
Shea, Paul William TC N 1
Shealy, Cecil Elton EC N 6
Sheffel, Donald David TC C 2
Shehee, Ayles Berry EC N 5
Shelton, Thomas Austin TC C 0
Shenkir, William Henry TC N 4

Ansonia, Conn.
Arlington, Va .
Allendale, N. J.
Detroit, Mich.
Nutley, N. J.
Knoxville, Tenn.
Garden City, N. Y.
Scranton, Pa.
Sharon, Pa.
Highland Park, N. J.
Greensboro, N. C.
Cos Cob, Conn.
Philadelphia, Pa.
Elgin, Ill.
Lowville, N. Y.
Akron, Ohio
Stroudsburg, Pa.
Hinsdale, Ill.
Durham, N. C.
Richmond Hill, N. Y.
Durham, N. C.
Winchester, Va.
Washington, D. C.
Philadelphia, Pa.
Hatboro, Pa.
Roanoke, Va.
Brentwood, Pa.
Greensboro, N. C.
Carney's Point, N. J.
Arcadia, Fla.
Erie, Pa.
Charlotte, N. C.
Vermillion, S. D.
Miami, Fla.
Mullins, S. C.
Durham, N. C.
Plano, Ill.
Spencer, N. C.
Poughkeepsie, N. Y.
Memphis, Tenn.
Newport News, Va.
Hendersonville, N. C.
Baltimore, Md.
Medina, Ohio
Manheim, Pa .
Albemarle, N. C.
Allentown, Pa .
Great Neck, N. Y.
Newark, N. J.
Lumberton, N. C.
Durham, N. C.
East Orange, N. J.
Newtown, Pa.
Guatemala City, C. A.
Greensboro, N. C.
Columbia, S. C.
Miami Beach, Fla.
Chattanooga, Tenn.
Laurel Hill, Fla.
Rogers, Texas

Shepard, Frank Eugene TC N 1
Shepherd, Douglas Nelson TC C 0
Shepherd, Robert Edward TC C 0
Shepherd, Roy Cornelious, Jr. TC C 2
Sherman, Ira Gray TC C 2
Sherrill, Glenn David TC N 7
Sherrill, John Lawrence TC C 3
Shevick, Jerry Joseph TC C 1
Shields, Luther Perry TC C 1
Shiney, Augustus Harold, Jr. TC N 2
Shingleton, Gerald Coburn TC C 7
Shockey, Paul Kenneth EC N 5
Shoemaker, Franklin R. TC N 5
Shore, Clarence Albert TC C 2
Short, Emmett Fulton TC C 0
Short, Frederick William TC C 1
Showell, John Dale TC C 0
Shropshire, William Gambill TC C 2
Shuler, Tom C. EC C 5
Shumway, Keith Charles TC N 5
Sicard, Arthur Joseph TC N 2
Simard, Harry Lawrence TC C 0
Simmons, Charles Bruce TC N 6
Simms, Charles Harrison TC N 0
Simon, Robert Raymond TC N 2
Simmons, William Baynard TC C 0
Simpson, Howard Kermit TC C 0
Simpson, John H. TC N 5
Simpson, Ralph Glenn, Jr. EC N 5
Sinclair, Carter Ashton TC C 1
Singer, Joel David TC N 6
Sinichko, George EC N 7
Sinkovitz, Frank B. TC C 2
Sitton, John Henry, Jr. TC C 4
Skelton, William Paul TC C 2
Skinner, William Wallace EC N 6
Sliger, Kenneth Leon TC N 3
Sloan, Randle Carroll TC C 1
Smallback, William C. TC C 1
Smith, Baxter Orton TC C 1
Smith, Burdette Rex TC C 4
Smith, Charles Eugene, Jr. TC C 4
Smith, Charles William TC C 1
Smith, Cody Heber TC C 7
Smith, DeVere Rogers TC N 0
Smith, DeWitt T. TC C 5
Smith, Donald Walker TC N 2
Smith, Frank White TC N 1
Smith, George Bryan TC C 4
Smith, Glenn Bryan TC C 2
Smith, Gordon Laidlaw, Jr. EC N 4
Smith, Harry H. EC C 3
Smith, Henry Hervey TC C 3
Smith, Herbert Green TC C 6
Smith, James Alexander, III TC C 4
Smith, Jesse Graham TC C 4
Smith, John Micnael TC C 2
Smith, Joseph Colbert TC C 1
Smith, Joseph Leonard TC C 5
Smith, Pershing G. TC C 0

Maryville, Tenn.
Huntington, W. Va.
Durham, N. C.
Lexington, N. C.
Durham, N. C.
Rutherfordton, N. C.
Cornelius, N. C.
Towson, Md.
Maryville, Tenn.
South Gate, Calif.
Wilson, N. C.
Smithsburg, Md.
Knoxville, Tenn.
Charlotte, N. C.
Shellman, Ga.
High Point, N. C.
Washington, D. C.
North Wilkesboro, N. C.
New Philadelphia, Ohio
Oklahoma City. Okla.
Turners Falls, Mass.
Holyoke, Mass.
Spindale, N. C.
Washington, D. C.
Westbury, N. Y.
Charlotte, N. C.
Cedar Grove, W. Va.
Elpin, Okla.
Winston-Salem, N. C.
Bluefield, W. Va.
Brooklyn, N. Y.
Raritan, N. J.
Harrisburg, Pa.
Greenville, S. C.
Spartanburg, S. C.
Hartford, Conn.
McDonald, Tenn.
Durham, N. C.
Oakfield, N. Y.
Bethesda, Md.
Casper, Wyo.
Hartford, Conn.
Fayetteville, N. C.
Durham, N. C.
Arlington, Va.
Durham, N. C.
Middlebury, Vt.
Chattanogoa, Tenn.
Greenville, S. C.
Miami Beach, Fla.
Chattanooga, Tenn.
Norfolk, Va.
Raleigh, N. C.
Lenoir. N. C.
Detroit, Mich.
High Point, N. C.
Winston-Salem, N. C.
Charlotte, N. C.
Charlotte, N. C.
Ridgewood, N. J.

Smith, Robert Neill TC C 3
Smith, Roger L. TC C 5
Smith, William Addison TC N 5
Smith, William Henry TC C 5
Smith, William James TC C 2
Smith, Yandell Roberts TC C 2
Smolen, Harry Anthony EC N 7
Sobell, Maurice Henry TC C 6
Sodowsky, Richard Allen TC N 5
Somers, Alfred Jay TC C 2
Sorrentino, Angelo Michael TC C 2
Soto, Douglas EC C 7
Southworth, Harrison Badger TC N 2
Speacht, Eugene George TC C 3
Spears, Charles Roy TC N 5
Spears, Marshall Turner, Jr. TC N 5
Speas, Herbert Lee, Jr. EC C 4
Spencer, Edward H. TC C 7
Spitz, John Victor TC C 2
Spivey, Victor TC C 0
Sprague, Robert Norman TC C 2
Sredanovich, Samuel Vidak TC N 4
Stalets, Verlyn Billy TC N 5
Stamm, James Charles TC N 6
Stanford, Stephen Dunlap TC C 1
Stanley, Larimer Vaughan EC C 2
Stanley, Richard Clark TC N 2
Stapp, Maurice Quinton, Jr. EC N 6
Stark, Robert Lee TC C 1
Starks, Garvin Tremaine TC C 1
Starks, Norman Ralph TC C 1
Starnes, Dale Sylvanus TC C 1
Stars, William Kenneth TC C 1
Stathakis, Gregory John TC C 2
Steadman, Robert Harry TC N 2
Steele, James Gladstone TC C 1
Steiner, Kenneth James EC C 3
Stenglein, Robert Wolcott TC C 5
Stentz, Donald Alan TC C 0
Stephens, Samuel Statham TC N 5
Stephens, Winston Bryant, Jr. EC N 6
Stephenson, Harold Patty EC C 6
Stevenson, Harold T. TC C 4
Stewart, Jack Aitwell TC C 2
Stewart, Robert Hasbruck TC N 0
Stewart, Robert Ray TC C 2
Stickel, Delford LeFew TC C 1
Stinson, John TC C 3
Stockstrom, Louis, III TC C 7
Stockton, Manley Stillwell TC C 1
Stokes, Walter Sidney TC N 2
Stone, Jerry Broadwell TC C 6
Stork, Carl Alexander TC N 2
Stott, Grady Bernell TC C 7
Stover, Alvin C. TC N 0
Stowe, Logan Perry TC N 0
Strasser, Richard Ira TC C 2
Straughn, Isaac Wade TC C2
Strauss, Theodore Beroud TC C 1
Strickland, Robert Hector TC C 1

Cullman, Ala.
Doylestown, Ohio
Atlanta, Ga .
Mount Airy, N. C.
Lithonia, Ga.
Louisville, Ky.
Whiting, Ind.
Detroit, Mich.
Blackwell, Okla.
Durham, N. C.
Bronx, N. Y.
San Jose, C. R.
Troy, N. Y.
Altoona, Pa .
McAlester, Okla.
Durham, N. C.
High Point, N. C.
Jackson, Tenn.
Atlanta, Ga.
Darlington, S. C.
Fanwood, N. J.
Fabens, Texas
Pana, Ill.
Grosse Pointe, Mich.
Durham, N. C.
Galax, Va.
Longmeadow, Mass.
Andice, Texas
Clarksburg, W. Va.
Owensboro, Ky.
St. Petersburg, Fla.
Granite Falls, N. C.
Durham, N. C.
Chester, S. C.
Swampscott, Mass.
Chillicothe, Ohio
Jeanette, Pa .
Saginaw, Mich.
Kalispell, Mont.
Gladys, Va.
Bethesda, Md.
Reidsville, N. C.
Bluefield, W. Va.
Jacksonville, Fla.
Brooklyn, N. Y.
Ironton, Ohio
Martinsburg, W. Va.
East Dennis, Mass.
Clayton, Mo.
Atlanta, Ga.
Morestown, N. J.
Hillsboro, N. C.
Philadelphia, Pa .
Bailey, N. C.
Trenton, N. J.
Kings Mountain, N. C.
New York, N. Y.
Walkertown, N. C.
Tallahassee, Fla.
Carolina Beach, N. C.

Stringer, Harold Gene TC N 7
Stroupe, James Leland EC C 2
Styers, Robert Lee TC C 1
Styron, William Clark, Jr. TC C 6
Suddard, Oliver V. TC C 5
Sugarman, Alan Cecil TC C 2
Sugarman, Samuel Henry TC N 2
Sugg, Joseph Leo TC C 5
Suggs, Alton Lee, Jr. TC N 1
Sughrue, John Joseph, Jr. TC N 2
Summers, James A. TC C 2
Summers, Joseph Vincent TC N 2
Summey, Morris Latham TC N 0
Sunas, Ernest C. TC C 6
Sutherland, Frank Ellsworth TC C 7
Sutton, Albert James TC C 2
Sutton, David Earl TC C 3
Sutton, Harry Wagner EC N 5
Sutton, Howard Mitchell TC N 5
Swain, David L TC N 2
Swalchick, George EC C 2
Swanson, William Edward TC C 0
Sweeney, John Rodney TC N 2
Sweeney, Thomas B. TC N 2
Talley, Harry Leslie TC N 5
Tallman, Alfred B., Jr. TC C 4
Tarter, James Wiiliam TC C 2
Tate, Theodore Roosevelt TC C 6
Taylor, Charles Lewis EC N 6
Taylor, David Kerr TC C 5
Taylor, Edd Wren TC C 1
Taylor, Geoffrey James EC N 6
Taylor, Neil Christopher TC C 2
Taylor, Olen Eugene EC C 2
Taylor, Robert Charles TC C 2
Taylor, William Harvey TC C 3
Taylor, William James TC C 1
Taylor, William Mottu TC N 0
Temples, Charles William TC C 0
Terrell, Kenneth TC C 6
Thacker, Frank Arrington TC C 1
Theurkauf, Otto Robert TC N 2
Thomas, Albert Donald EC C 4
Thomas, Albert Patrick TC C 2
Thomas, Bernard Hylton TC C 2
Thomas, Bernice Lynn TC C 0
Thomas, Lawrence William TC N 2
Thomas, Paul Bert EC N 6
Thomas, Pendleton Jones, Jr. TC C 2
Thompson, Donald R. TC N 7
Thompson, Edwin Spencer TC C 0
Thompson, Jack Younger TC C 2
Thompson, James Lee TC N 5
Thompson, Leonard Howard EC N 5
Thompson, Malcolm Edward TC N 2
Thrash, Louis Dale TC C 1
Thrower, Troy H. TC C 6
Thrower, Wendell Burton TC C 4
Thunberg, William Earl TC C 0
Ticktin, Boyd Louis EC C 2

Louisville, Miss.
Charlotte, N. C.
Winston-Salem, N. C.
Newport News, Va.
Newark, Del.
Asbury Park, N. J.
Brooklyn, N. Y.
Durham, N. C.
Durham, N. C.
Long Island, N. Y.
Salisbury, N. C.
Ardmore, Pa .
Lincolnton, N. C.
Durham, N. C.
St. Petersburg, Fla.
Brownsville, Pa .
Goldsboro, N. C.
Baltimore, Md.
Roanoke, Va.
Asheville, N. C.
Colvex, Pa.
Nashville, N. C.
Scarsdale, N. Y.
Westport, Conn.
Kansas City, Mo.
Hamburg, N. Y.
Richlands, Va.
Hindman, Ky.
Charleston, W. Va.
Oxford, N. C.
Winter Park, Fla.
Manheim, Pa.
Jacksonville, Fla.
Durham, N. C.
Alexandria, La.
Enka, N. C.
Warsaw, N. C.
Baltimore, Md.
Winston-Salem, N. C.
Sylva, N. C.
St. Louis, Mo.
Montclair, N. J.
Brunson, S. C.
Columbia, S. C.
Leaksville, N. C.
Durham, N. C.
Waterman, Pa .
Clayton, N. Y.
Savannah, Ga.
Kingsport, Tenn.
Durham, N. C.
Durham, N. C.
Heflin, Ala.
Trenton, N. J.
New York, N. Y.
Asheville, N. C.
Ridgeville, S. C.
Ridgeville, S. C.
Fayetteville, N. C.
Durham, N. C.

Tipton, Jeremy Cole TC C 1
Toledo, Jose Eugenio EC C 2
Tomlinson, Russell Crawford TC C 1
Trainer, John Carlton, Jr. TC N 2
Trawick, Irving Fredrick TC C 3
Trechsel, Frank Rinard TC C 1
Trenkmann, Edward, Jr. TC N 2
Tripp, Paul Russell TC N 2
Trippett, Frank Gordon TC N 5
Trogdon, Floyd Harrison TC C 0
Trumble, Richard William TC C 5
Trumbull, Roy John EC C 7
Trusk, George TC N 1
Tucker, Adam Reynold, Jr. Spec. C
Tucker, William Eric Spec. C
Tumlinson, William Blackwell TC N 5
Turbidy, John Berry TC C 0
Turbiner, Milton TC C 7
Turlington, Thonias Eli TC C 2
Turnbull, Walter Ford TC N 2
Turner, Harlan K., Jr. EC C 2
Turner, Philip Roy TC C 1
Turpin, David Howard TC C 1
Tyndall, Rommie Winfred TC C 1
Ulmer, David H. B. TC C 8
Underhill, David Albert TC N 2
Underhill, John Arthur TC N 2
Underwood, Jack D. EC C 3
Upchurch, John Lee, Jr. TC C 1
Urlaub, Matthew William EC C 3
Valentine, Charles Carleton TC N 5
Valley, Morton T., Jr. TC C 4
Vallotton, Billy Wise TC C 4
Vandercook, John Paul TC N 5
Vandeventer, Willard Ezra TC C 1
Vann, Arthur TC C 4
Van Steenburgh, Richard Paul TC C 0
Vasquez, Hector TC C 1
Vaughan, Earl J. TC C 2
Vatighan, John Willis EC N 5
Veals, Ralph Langon TC N 5
Vick, Marvin Whitfield TC C 4
Vining, Ralph Edward EC N 5
Vining, Seth Macon, Jr. TC C 4
Virgin, Don G. TC N 5
Vogel, John L. TC C5
Vreeland, Robert Gerald TC C 3
Wacker, Kenneth Henry EC C 2
Wagner, Fred Reese, Jr. TC C 2
Walker, Charles Richard TC C 0
Walker, Earl Newton TC C 0
Walker, Frederick L. TC C 6
Walker, Fred McKinley, Jr. TC C 3
Walker, Harry Clayton TC C 0
Walker, James Vernon Spec. N
Walker, John C. TC N 3
Walker, William Freeman TC C 2
Wall, Junius French TC N 5
Wall, William F. TC N 3
Wallace, Oliver Clare, Jr. TC C 7

Danville, Ky.
Guatemala, C. A.
Bloomfield, N. J.
Collingswood, N. J.
Durham, N. C.
Birmingham, Ala.
Larchmont, N. Y.
Jersey City, N. J.
Aberdeen, Miss.
Randleman, N. C.
Miami, Fla.
Milwaukee, Wisc.
Chicago, Ill.
Raleigh, N. C.
Greenville, N. C.
West Point, Miss.
Rome, Ga.
Long Island, N. Y.
Clinton, N. C.
Williamsport, Pa.
Atlanta, Ga.
Cincinnati, Ohio
Bedford, Va.
Durham, N. C.
Moorestown, N. J.
Summit, N. J.
Edgewood, R. I.
Durham, N. C.
Durham, N. C.
Long Island, N. Y.
Brooklyn, N. Y.
Cohoes, N. Y.
Valdosta, Ga.
Alexander, Ark.
Dorchester, Va.
Dunn, N. C.
Buffalo, N. Y.
New York, N. Y.
Orlando, Fla.
Hampton, Va.
Carney's Point, N. J.
Mayodan, N. C.
Baltimore, Md.
Tryon,N. C.
Ashland, Ky.
Louisville, Ky.
Easton, Pa.
Chatham, N. J.
Haddonfield, N. J.
Winston-Salem, N. C.
Millen, Ga.
Washington, D. C.
Ben Hill, Ga.
Greenville, S. C.
Hoisington, Kans.
Bethesda, Md.
Hazlehurst, Ga.
Lookout Mountain, Tenn.
Mt. Airy, N. C.
Durham, N. C.

Wallace, Taylor Harrison TC N 6
Wallis, James Rueben EC C 7
Walsh, William Madison, Jr. TC C 6
Walton, Loring Baker TC C 1
Wambach, Richard F. TC N 6
Wanzer, Philip H. TC C 1
Ward, Robert Lee TC C 2
Ward, Robert Paul TC C 2
Warlick, William Lee TC C 0
Warner, Joseph Ernest, Jr. TC Cl
Warren, George B. TC C 1
Warren, Julian Marion TC N 3
Warta, Clarence E. TC C 1
Washburn, Samuel Wells TC C 3
Watkins, Warren Thomas TC C 5
Watson, Arthur Charles, Jr. TC C 5
Watson, Harvey Langill TC C 5
Watson, John Eugene, Jr. TC C 0
Watts, John Simmerman TC C 1
Webster, Wesley G. TC C 5
Webster, William Frank TC C 0
Weeks, R. Heywood TC C 5
Weil, Kenneth Louis TC C 5
Weinberg, Carroll Arnold TC C 2
Weinberg, John D. TC N 5
Weir, Harry M. TC C 4
Weirauch, Roland EC N 7
Weiss, Jerry TC N 0
Welch, George Harrison, Jr. TC C 2
Welch, James Edward TC C 2
Welko, Daniel Henry TC N 0
Welshans, C. Robert TC C 6
Wessinger, James Arnold TC C 2
West, Edwin Scott TC N 6
West, Raymond Troy TC C 0
West, Robert Holt TC C 5
Westbrook, Donald Elliott TC N 1
Wester, Thaddeus B. TC N 7
Westover, Don Alden, Jr. TC C 6
Whalen, Walter Fintan TC C 2
Whatton, Francis William TC C 3
Wheeler, Arthur Edwin EC N 6
Wheeler, Joseph Orby TC C 5
White, Arthur Remington, Jr. TC C 0
White, Beaman Twitty TC C 5
White, Charles Palmer TC C 2
White, Clayton Alden TC C 4
White, Edward Allen TC N 2
White, Norman Lee TC N 0
White, Raymond Herbert, Jr. TC C 1
White, Richard Marion EC N 7
White, Weyman Erasmus TC C 3
Whitehurst, Patrick Dean TC N 2
Whiteley, Charles Douglas TC C 0
Whitesell, John P. TC C 2
Whitfield, Don Scott TC C 2
Whitfield, Thomas Japheth, III TC C 5
Whiting, Richard A. TC N 5
Whitley, Joseph McCullough EC N 7
Whitsitt, Lynn Edward EC N 5

Crystal Springs, Miss.
Lovejoy, Ga.
Albany, N. Y.
Durham, N. C.
Georgetown, Minn.
Charlotte, N. C.
Tenafly, N. J.
Detroit, Mich.
Newton, N. C.
Winston-Salem, N. C.
Orlando, Fla.
Spring Hope, N. C.
Lindenhurst, N. Y.
Bostic, N. C.
Johnson City, Tenn.
Houston, Texas
New Bern, N. C.
Mullins, S. C.
Ivanhoe, Va.
Andover, N. H.
Durham, N. C.
Charlotte, N. C.
New York, N. Y.
Blackstone, Va.
Mt. Vernon, N. Y.
Winston-Salem, N. C.
Liberty Center, Ohio
Brooklyn, N. Y.
Anderson, S. C.
Suffolk, Va.
Baxter, W. Va.
Wheeling, W. Va.
Salisbury, N. C.
Windhom, Texas
Camden, S. C.
Charlotte, N. C.
Sherman, Texas
Henderson, N. C.
Hastings, Pa .
Philadelphia, Pa.
Sharon, Pa.
Philadelphia, Pa.
Toronto, Canada
Richmond, Va.
Raleigh, N. C.
Rochester, N. Y.
Orleans, Mass.
Long Island, N. Y.
Philadelphia, Pa.
White Plains, N. Y.
Norfolk, Va.
Atlanta, Ga.
Washington, D. C.
Albemarle, N. C.
Knoxville Tenn.
Hillsboro, N. C.
Suffolk, Va.
Wynnewood, Pa.
Oakmont, Pa.
Decatur, Ill.

Whitted, Gordon Lawrence TC C 0
Whitten, Ward Bower TC N 2
Whittington, Arthur Donnell, Jr. TC C 6
Whittle, Howard Hamilton TC C 1
Wight, Fred Cary TC N 5
Wilbur, Robert Lynch TC C7
Wilder, Jesse Holland EC C 5
Willett, Charles Fink TC N 5
Williams, Fred D. TC C 4
Williams, Kenneth Trotter TC C 3
Williams, Lloyd Lorenza TC C 4
Williams, Tom William TC C 2
Williams, Webster D. TC C 0
Willis, Gerald Graham TC C 1
Willson, William W. TC C 4
Wilson, Alexander Charles R. EC N 6
Wilson, Gordon Bruce TC N 2
Wilson, James Joseph, Jr. TC N 0
Wilson, Nathan Hughs TC C 1
Wilson, Norwood Williams TC C 4
Wilson, Robert Hayes TC N 5
Wilson, Walter Grier TC C 1
Winders, William Rudolph TC C 4
Windham, Theron Johnson TC C 6
Winitsky, Leon EC N 7
Winkler, Hubert Erwin EC C 2
Winter, Charles K. TC C5
Wise, John Southey TC C 0
Wittreich, Robert Joseph TC N 0
Woerdeman, George, III TC N 1
Wolf, Robert Lawrence TC C 2
Wolff, Charles Gaulbert TC C. 2
Wolff, George Miles EC C 8
Wolff, Robert Stanley TC C 6
Wong, Wendell Gordon TC C 2
Wood, Byron Allen TC N 6
Woodard, Carl Hassell TC N 2
Woodbury, Philip Stephen TC C 1
Woodley, William Thomas TC C 2
Wooten, John Henry TC N 7
Worley, Douglas John TC C 1
Wuchte, Richard Ernest EC N 5
Wyman, M. Richard TC C 2
Yarborough, Frank Graham TC C 6
Yeager, Bearl Alvin, Jr. TC C 0
Yelverton, Calvin Robert TC C 5
Yelverton, John Lane TC C 1
Young, Harold E. Spec. C
Young, James John TC N 2
Young, Linville Franklin TC C 0
Young, Loren Darlington TC C 2
Young, William Clarence TC C 6
Younger, Kenneth Glenn TC C 1
Yovicsin, Anthony John TC C 4
Zbikowski, Francis W. TC C 7
Ziegler, Sidney TC C 3

Durham, N. C.
Mineola, N. Y.
Durham, N. C.
Concord, N. C.
Sanford, Fla.
Durham, N. C.
Delight, Ark.
Perry, Okla.
Long Island, N. Y.
Charlotte, N. C.
Jacksonville, Fla.
Pensacola, Fla.
Hillsboro, N. C.
Morehead City, N. C.
Darien, Conn.
Baltimore, Md.
Pittsburgh, Pa .
Philadelphia, Pa.
Charlotte, N. C.
Hopewell, Va.
Los Angeles, Calif.
Charlotte, N. C.
Bristol, Tenn.
Columbus, Ga.
Camden, N. J.
Lenoir, N. C.
Bridgeport, Conn.
Newport News, Va.
Flushing, N. Y.
Hillsdale, N. J.
Brooklyn, N. Y.
Louisville, Ky.
Haynesville, La.
Rhodesdale, Md.
Trinidad, B. W. I.
Hissop, Ala.
Spring Hope, N. C.
Pearisburg, Va.
Elizabeth City, N. C.
Laurel, Miss.
Raleigh, N. C.
Philadelphia, Pa .
Baltimore, Md.
Raleigh, N. C.
Binghamton, N. Y.
Fremont, N. C.
Fremont, N. C.
Miami, Fla.
Wildwood, N. J.
Charlotte, N. C.
Huntington, W. Va.
McCrory, Ark.
Tampa, Fla.
Steelton, Pa.
Terryville, Conn.
New York, N. Y.

## November 3, 1945-February 25, 1946

TC indicates Trinity College and EC College of Engmeering. Letters denote classification: C, Civilian; N, Navy. Number shows semesters completed as of November, 1945.

Abelkop, Sheldon TC C 3
Ableson, Winston Abraham TC N 0
Adams, Hunter DeWees, Jr. EC N 4
Adler, Sheldon Bert TC C 2
Afflerbach, John Joseph TC N 0
Aiken, Franklin D., III TC N 4
Alderson, Harold C TC C 2
Alexander, James Robert TC C 2
Allison, Luther Lee TC C 6
Allred, William Floyd TC C 4
Alpert, Eugene Oliver TC C 6
Alt, Thomas Henry TC N 4
Amis, Charles J., Jr. TC C 1
Amonette, Joseph Irwin TC C 1
Anderson, Charles Duane TC N 5
Anderson, Robert Aeiker TC C 1
Anderson, William Woodrow TC N 5
Andrews, Irving Weed, Jr. TC N 0
Andrews, William F. TC C 2
Angelillo, Ralph Clemens TC C 3
Appen, Raymond Carl TC C 1
Armor, James Burton TC N 4
Armstrong, Elijah Durham, Jr. TC C 2
Armstrong, Lonzo P. TC N 4
Ashby, William Clay TC C 3
Auger, John Gardner TC N 4
Aumen, William Charles EC C 2
Ausbon, Douglas Hix TC C Auditor
Austin, James Howard TC C 1
Austin, James Jackson TC C 0
Austin, Tollie Edward, Jr. TC C 4
Baarslag, Anton Frederik TC C 4
Bagwell, Wallace B. TC N 6
Bailey, Edgar Lee TC C 8
Bailey, Lionel F. Hanstock TC N 4
Bailey, Raymond Bronson TC C 0
Bainbridge, Albert Wayne EC N 4
Baisden, Tyson Edward, Jr. TC N 3
Baker, Barry TC C 3
Baker, Beryl A. EC N 4
Baker, Keith Legette TC C 1
Baker, Sumner E. TC N 5
Baker, Walter Wesley, Jr. TC N 0
Baldwin, Fred Walker EC N 4
Baldwin, Kenneth Rone TC C 1
Bane, Allen TC C 3
Barbee, Charles Wesley TC C 3
Barber, John W. TC C 2
Barker, Charles Warwick TC C 0
Barker, Julian TC C 1
Barker, Richard Elliott TC C 1
Barkin, Bernard Lewis TC C 1
Barnard, George William TC C 0
Barnard, John Lockhart TC C 4
Barnes, Albert Ernest TC N 1
Barnett, Ewing Smith TC C 1

Durham, N. C.
Memphis, Tenn.
Drexel Hill, Pa.
Brooklyn, N. Y.
Casper, Wyo.
Griffin, Ga.
Durham, N. C.
New Orleans, La.
Warrenton, Va.
Rockingham, N. C.
Brooklyn, N. Y.
Washington, D. C.
Durham, N. C.
Albany, Ga.
Lakeland, Fla.
Winfield, W. Va.
Ettrick, Va.
Joplin, Mo.
Lynn, Mass.
Newark, N. J.
Oak Ridge, Tenn.
Oklahoma City, Okla.
Beckley, W. Va.
Okennah, Okla.
Mt. Airy, N. C.
Denver, Colo.
Braintree, Mass.
Durham, N. C.
Pittsburgh, Pa.
Kingsport, Tenn.
Portsmouth, Va.
Larchmont, N. Y.
Toccoa, Ga.
Lexington, $\mathrm{N} . \mathrm{C}$.
Shreveport, La.
Bristol, Conn.
Gainesville, Fla.
Columbus, Ga.
Rocky Mount, N. C.
Atlanta, Ga.
Hemingway, S. C.
Tampa, Fla.
Kinston, N. C.
Cedartown, Ga.
Whiteville, N. C.
Austell, Ga.
Durham, N. C.
Anderson, Ind.
Lumberton, N. C.
Wilson, N. C.
Rockaway, N. Y.
New York, N. Y.
Cramerton, N. C.
St. Louis, Mo.
Washington, D. C.
Albany, Ga.

Barrett, John Albert TC C 4
Barrett, Richard Irvin TC C 0
Barron, Archie I. TC C 2
Barrow, Thomas Augustine, Jr. EC N 4
Bartel, Frank O. TC C 1
Eass, Kenneth Leroy EC N 3
Bates, Alvin Kay TC N 6
Batting, Robert Alan TC N 1
Baucom, Daniel Reid TC C 0
Baugh, Ruffner Perry TC C Auditor
Baughman, Charles Ben, Jr. TC N 0
Bausch, James William TC N 1
Bayers, John, Jr. TC N 4
Bayless, Horace W. TC C 4
Baynes, James Rufus TC C 0
Beam, Augustus Pitt TC N 2
Beam, Jay Ky EC N 6
Bear, Laurie Alan TC C 0
Bechtel, John C. TC C 2
Bechtold, George William EC N 5
Beck, William Harvey TC C 1
Becker Glenn Richard TC N 0
Becker, Harold Leo EC N 5
Becker, Kenneth Eugene TC N 0
Beckler, Samuel Kay TC N 0
Becknell, George Franklin, Jr. TC C 0
Bedell, Harold Edward TC C 2
Bell, Frank Lee TC C 6
Bell, Howard Edward TC N 0
Bell, James Roy TC N 2
Bell, Richard Russell EC N 4
Bell, William Braswell TC C 0
Bell, William Henry TC N 4
Eello, Harold A. TC C 5
Benfield, Dana Hunt TC C 0
Bennett, John Pinkston, Jr. TC N 5
Bennett, Reginald Victor, Jr. TC C 4
Bennett, Rodney Doane TC C 1
Bennett, William Cranford EC C 4
Berkowitz, Ami E. TC N 7
Rerlin, Melvin TC C 1
Berne, Edgar TC C 0
Berry, Don Kay TC N 5
Best, Edward Gene TC C 0
Beyer, Henry J. TC N 5
Biancavilla, Dominick EC N 5
Bianchi, Richard Eugene TC C 1
Biles, Bedford H. TC C 4
Billings, George James TC N 1
Bingaman, John William TC C 1
Bingler, Robert Byron TC C 1
Birmingham, Walter Marvin TC N 5
Bisbe, Richard Emil EC N 6
Bishopric, Welsford Farrell TC C 1
Bizzell, Henry Arthur TC C 1
Bjorklund, Harry Edwin TC N 0
Elack, Alastair Macdonald EC N 4
Rlack, David Coiey TC C 5
Blackard, Embree Hoss TC C 1
Blackman, Thomas TC N 5

Norfolk, Va.
Fairfield, Conn.
Manning, S. C.
Lakeland, Fla.
Spartanburg, S. C.
North Zulch, Texas
Nampa, Idaho
Reading, Mass.
Durham, N. C.
Charlotte, N. C.
Elizabethton, Tenn.
Oceanside, N. Y.
Franklin Park, Ill.
Port Huene, Calif.
Durham, N. C.
Shelby, N. C.
Beaufort, N. C.
Wakefield, Mass.
Collegeville, Pa .
Pittsburgh, Pa.
Wadesboro, N. C.
Ashland, Wis.
Bethlehem, Pa.
Morrison, Ill.
Copperhill, Tenn.
Pacholet, S. C.
Freeport, N. Y.
Durham, N. C.
Colfax, Iowa
Unicoi, Tenn.
St. Louis, Mo.
Ailanta, Ga.
Kingsville, Texas
Ossining, N. Y.
Romney, W. Va.
Lufkin, Texas
Louisville, Ky.
Saratoga Springs, N. Y.
Greensboro, N. C.
Philadelphia, Pa.
Savannah, Ga.
Woodhaven, N. Y.
Overland, Mo.
Goldsboro, N. C.
Portland, Ore.
New York, N. Y.
Guatemala City
Concord, N. C.
Bogota, N. J.
Reading, Pa .
Pittsburgh, Pa.
Granite City, Ill.
Brooklyn, N. Y.
Spray, N. C.
Newton Grove, N. C.
Richville, Minn.
Stone Mountain, Ga.
Durham, N. C.
Charlotte, N. C.
Klamath Falls, Ore.

Blackwell, Clifford Earl TC C 5
Blake, James H. TC C 8
Blake, William Campbell, Jr. TC C 4
Blankenship, Charles Guy TC N 6
Bliss, George Yemens TC N 1
Blome, William Arnold TCC 1
Blount, Gerald Rowden, Jr. TC C 0
Blount, Willis Clayton TC N 3
Bobbitt, Joseph Irvin TC C 1
Bodine, Alfred John TC C 0
Bodle, Robert Allan TC C 3
Boeckel, John Hart EC N 4
Boegel, Edward Charles TC N 1
Boger, Clarence Earl TC N 5
Boggs, John Campbell, Jr. TC C 1
Bogle, Robert Stover TC C 0
Bogley, Claude William TC N 4
Bonn, Marvin Charles EC N 6
Boone, William Gardner, Jr. TC C 0
Booth, Claude Carr EC N 5
Booth, Joseph Kenneth TC N 6
Bortz, Kilmer Schmuck TC C 8
Bossard, John W. TC C 6
Bostwick, John Allen, Jr. TC N 4
Boswell, George T. EC N 4
Bowles, Robert Wickizer TC C 0
Bowman, Jacob Carroll TC N 0
Boyle, John Robert EC C 2
Boyles, Billy Lewis TC N 0
Bozich, Anthony M. TC N 5
Bracey, Earl Watkins TC N 6
Brackenwagen, Stanley Gene TC N 5
Bradbury, William Chase TC N 1
Bradley, Emmett Hughes TC C 1
Bradley, Richard Sidney TC C 1
Branch, Charlie Eldridge TC C 0
Brand, Joseph Margon TC N 4
Brandt, Chester TC C 5
Branham, William Dennis TC C 1
Brazis, Michael D. TC C 0
Breda, Fred, Jr. TC N 1
Brennan, William K. TC N 4
Bresnahan, Frederic Shaw TC N 2
Brewer, James Lambe TC C 1
Brice, George Wilson TC C 1
Bridgeman, Robert Lavelle TC N 4
Bridges, Billie Mack TC N 0
Bridges, Ronzee McIntyre TC C 8
Bridwell, Jesse Leroy EC N 4
Bright, John K. TC C 1
Brinkley, Harvey Thaw TC C 0
Brinkley, John Dallas TC C 1
Brinson, Edward TC C 0
Britt, Clyde Lee TC C 3
Broderick, Lawrence P. TC C 0
Brooks, Richard Iddings, Jr. TC N 6
Brown, Bachman Storch TC N 5
Brown, Chandler Wilcox EC N 5
Brown, Clarence J., Jr. TC N 4
Brown, Curtis, Jr. TC C 1

Rockford, Ill.
Kingstree, S. C.
Tampa, Fla.
Florence, S. C.
Manahesset, N. Y.
Lincoln Park, N. J.
Westfield, N. J.
Philadelphia, Miss.
Wilmington, N. C.
Ruchester, N. Y.
Philadelphia, Pa.
Rockville, Md.
Freeport, N. Y.
Akron, Ohio
Front Royal, Va.
Concord, N. C.
Friendship Heights, Md.
Freeport, Ill.
Memphis, Tenn.
Philadelphia, Pa.
Columbus, Ga.
Washington, D. C.
Myersville, Md.
Atlanta, Ga.
Atlanta, Ga.
Garden City, N. Y.
Mt. Airy, N. C.
New York, N. Y.
High Point, N. C.
Chicago, Ill.
La Crosse, Va.
Brookings, S. D.
Hopedale, Mass.
Hampton, Va.
Williamson, W. Va.
Little Rock, Ark.
Louisville, Ky.
Brooklyn, N. Y.
Rocky Mount, N. C.
New York, N. Y.
Phillipsburg, N. J.
Louisville, Ky.
Beverly Farms, Mass.
Siler City, N. C.
Charlotte, N. C.
Eldorado, Texas
Trimble, Tenn.
Shreveport, La.
Decatur, Ill.
Westport, Conn.
Northside, N. C.
Valdese, N. C.
Kissimmee, Fla.
Lumberton, N. C.
Norwick, Conn.
Peterboro, N. H.
Lincolnton, N. C.
Short Creek, W. Va.
Washington, D. C.
Hillsboro, N. C.

Brown, Frank Eason TC N 3
Erown, John Simeon LaFayette, Jr. TC N 0
Brown, Kenmore McManes TC N 5
Brown, Marion Gillespie TC N 0
Brown, Miller French EC C 5
Brown, Spencer Hunter TC N 0
Brown, William Paul TC N 0
Brownell, William H. TC N 4
Bruce, Richard Patten TC C 1
Bruck, Thomas J. EC N 5
Bruker, Eugene Norman TC C 0
Brundage, Blair George TC C 0
Brunner, George Joseph TC N 4
Bruno, Henry Leonida TC N 0
Bryan, William J. TC C 3
Bryans, Robert Lee, II TC C 5
Bryant, Johnnie Mack TC C 0
Bryant, Norman TC C 2
Bryant, William Patrick TC N 4
Bryson, Arnold S. TC C 1
Buchanan, Edward Dean EC N 5
Bucher, Elwood Ray TC C 1
Euck, Lewis Alexander TC N 5
Bugg, Charles P. TC C 4
Bugg, Richard Alexander TC C 0
Buhler, Charles Allen TC N 4
Bullard, John C. EC N 4
Bullock, Thomas K. TC C 2
Burch, Walter Galloway, Jr. EC N 3
Burdick, Wallace Thurston TC C 1
Burgert, Carl S. TC C 0
Burgoyne, Caleb Reese TC C 1
Burke, Richard A. TC C 2
Burkhalter, Archie Herman EC N 3
Burrus, Robert Smith TC C 4
Burson, Bruce Beveridge TC N 0
Burson, Roger Tex TC N 4
Burton, Orion Meade TC C 1
Busby, Robert David TC N 3
Busch, Adolphus Louis TC N 0
Butera, Clendon Joseph TC N 4
Butler, Paul Frederick TC C 2
Putscher, Thomas Bennett TC C 1
Buzzard, Robert Douglas TC N 4
Byrd, Reginald Eugene TC C 1
Cahow, James Norman EC N 5
Cairns, Frank E., Jr. TC N 6
Caldwell, Nelson Edward TC N 4
Callahan, Charles Edward TC N 1
Callis, Ben Lewis TC C 2
Campbell, Braig Carol TC C 4
Campbell, Donald Adams TC C 0
Campbell, Lachlon Leigh TC C 5
Cannon, Frank Grene TC C 1
Cannon, Michael Leo TC N 6
Cappel, Jack Thompson TC C 1
Carlisle, Ben Howard EC C 7
Carlson, Harold Eugene TC N 4
Carlson, Richard B. TC N 0
Carpenter, Thomas Earl TC N 5

Witesboro, Texas
Wilmington, N. C.
Washington, D. C
Pocahontas, Ill.
Beaumont, Texas
Oak Ridge, Tenn.
Grandy, Minn.
Fleming, Colo.
Atlanta, Ga.
Brooklyn, N. Y.
Augusta, Ga.
New York, N. Y.
W. New York, N. J.

Metuchen, N. J.
Boston, Pa.
Pensacola, Fla.
Durham, N. C.
Jacksonville, Fla.
Springfield, Tenn.
Chicago, Ill.
Lorain, Ohio
Charlotte, N. C.
Norfolk, Va.
Raleigh, N. C.
Virginia Beach, Va.
Texarkana, Ark.
DeFuniak Springs, Fla.
Birmingham, Ala.
Moulton, Okla.
Englewood, N. J.
Cleveland, Ohio
Pensacola, Fla.
Charlotte, N. C.
Pasadena, Texas
Engelhard, N. C.
Selma, Ala.
Albany, Ga.
Thomasville, N. C.
Ada, Okla.
Irvington, N. J.
New Orleans, La.
Jacksonville, Fla.
Parkersburg, IV. Va.
Charleston, Ill.
Portsmouth, Va.
Omaha, Neb.
Mazomanic, Wis.
Houston, Texas
South Windsor, Conn.
Willow Springs, N. C.
Durham, N. C.
Chapel Hill, N. C.
Charleston, W. Va.
Cliffside, N. C.
Gladstone, Mich.
Alexandria, La.
Sandusky, Ohio
Oak Park, Ill.
Minneapolis, Minn.
Goodlettsville, Tenn.

Carr, Thomas Laurence TC C 1
Carrier, Uel Lavon EC N 7
Carruth, Paul TC C Spec.
Carson, Raymond P. TC C 6
Carson, Raymond Reese EC N 4
Carter, George D., Jr. TC C 4
Carter, Hal Dunson EC N 4
Carter, Luther Jordan TC C 1
Carver, Charles Hinson TC C 8
Cashwell, Richard Barton TC N 1
Cathcart, Edward Reaver TC C 1
Catlett, John Esker, Jr. TC N 0
Chadwick, David N. TC C 2
Chadwick, Harry Roberts, Jr. TC C 1
Chambers, Fletcher Pasteur TC C 0
Chambers, James Alsa TC C 4
Chapman, Robert W. TC C 0
Chapman, Tom Louis TC C 6
Chappell, Hoye Patterson TC C 0
Chappell, Thomas T. TC N 4
Charon, John Albert TC N 4
Chase, Alan Bruce EC N 4
Chase, Fred Lamar TC N 5
Chears, William Crockett, Jr. TC C 4
Cheek, James B. TC C 1
Chesnutt, Norwood Bennett TC C 2
Chetlin, Norman Daniel EC N 5.
Chevrier, John Amby TC N 3
Chick, Ernest Watson TC C 0
Chidester, Robert Paul TC C 1
Chillingworth, Mehrtens Gould TC C 1
Chipley, Roy Marshall, Jr. EC N 4
Chisholm, Lorenzo Dow TC C 0
Christian, John Wortham TC C 2
Christner, Howard Hayes TC C 1
Christopherson, Warren Hugo TC C 0
Clark, Gordon Eugene TC N 1
Clark, John TC C 0
Clark, Walter S. TC C 5
Clark, William Howard EC N 3
Clary, Guy Willis TC C 0
Classen, Robert E. TC N 5
Cleary, Robert James TC N 4
Cleaver, Charles M., Jr. TC C 2
Clifford, Robert K. EC N 5
Clymer, Ludwick Mosyne TC C 3
Coady, James Malcolm TC N 1
Coble, Russell Cooke TC C 0
Coe, Lowry Nadal, Jr. TC N 4
Coggeshall, Berryman Edwards TC C 1
Cohen, Alan Berman TC C 0
Cohen, Phineas TC C 0
Cole, John Gordon, Jr. TC C 1
C.ole, Leo Lincecum TC N 4

Coleman, John James TC C 3
Coles, Jewell R. EC N 4
Collier, Lee Noel TC N 4
Collins, Ira Taylor TC C 1
Collins, Northam Warren TC N $1^{\circ}$
Collins, William Cornelius TC N 1

Chester, Pa.
Bluff City, Tenn.
Henderson, N. C.
Belmont, N. C.
Little Falls, N. J.
Carthage, N. C.
Coral Gables, Fla.
Charlotte, N. C.
Baltimore, Md.
Hope Mills, N. C.
Anderson, S. C.
Chattanooga, Tenn.
Wilmington, N. C.
Durham, N. C.
Durham, N. C.
Homerville, Ga.
Charlotte, N. C.
East Orange, N. J.
Candor, N. C.
Plainfield, N. J.
Tulsa, Okla.
Coral Gables, Fla.
Hollywood, Fla.
Charlotte, N. C.
Durham, N. C.
Whilerville, N. C.
E. Pittsburgh, Pa.

Eastport, Me.
Durham, N. C.
Ashtabula, Ohio
Honolulu, Ter. of Hawaii
Raleigh, N. C.
Charlotte, N. C.
Durham, N. C.
Somerset, Pa.
Washington, D. C.
New Haven, Conn.
Durham, N. C.
Miami, Fla.
Terrell, Texas
Gaffney, S. C.
St. Paul, Minn.
Hensdale, Ill.
Marion, Pa.
Baltimore, Md.
Greensboro, N. C.
Monument Beach, Mass.
Concord, N. C.
Chevy Chase, Md.
Darlington, S. C.
Miami, Fla.
Baltimore, Md.
Blackstone, Va.
Memphis, Tenn.
Birmingham, Ala.
Allensville, Ky.
New Orleans, La.
Kingsport, Tenn.
Sayville, N. Y.
Providence, R. I.

Colmer, Thomas Warren TC N 3
Compton, William Avera TC N 0
Condon, Vernon William EC N 5
Connolly, William Dwight TC N 6
Connor, Robert Earl TC N 1
Cook, Howard Charles TC C 5
Cook, Paul Hine TC C 5
Cook, Roger G. TC C 0
Cooke, John Henry EC N 6
Cooley, Horace F. TC N 6
Coon, Allan Gregory TC C 1
Cooper, Albert Brandon TC C 0
Cooper, Frederick Stephen TC C 1
Cooper, James Henry TC N 6
Copenhaver, Edward Holmes, III TC C 1
Coppin, Charles Clifford, III EC N 4
Cordell, Frank Thomas TC N 4
Corey, James Richard TC N 0
Corley, Charles Bivette, Jr. TC C 0
Cormack, Charles M. TC C 3
Corrado, Victor M. EC N 6
Corrigan, James Henry TC N 5
Corrington, James E. TC C 3
Cosby, Jack Terrell TC N 5
Couch, Nathaniel J. EC N 4
Courville, Avit Joseph TC N 3
Covington, Alpheus M. TC C 8
Coward, Wilson Newell TC C 4
Cowie, Douglas Brann TC C 0
Cox, Frederick G. EC N 3
Cox, William Jones, Jr. TC C 7
Cranford, Henry Lee TC C 0
Craniotis, George E. EC C 3
Credle, Edward Cecil EC N 6
Cressman, Robert Allen EC N 5
Crigler, Benner Bittinger TC C 0
Cross, Ray Y. TC C 4
Cudworth, James Rowland EC N 6
Cummings, Keith Charles TC N 4
Cummins, Troy LeLay TC N 1
Cunningham, Charles TC C 0
Cunningham, James Langdon TC N 3
Curlee, Lewis E. TC C 4
Curotto, George Victor TC N 1
Currie, William Dixon TC C 1
Curry, John Edward EC N 6
Curry, John Robert, Jr. TC C 1
Cushman, Charles L. TC C 3
Custer, George Edwin EC N 4
Cutter, Ernest, Jr. TC C 6
Czerwinski, Stephen R. TC N 4
Dabbs, Thomas McBride TC C 2
D'Amico, Frank J. TC C 3
Dane, Nelson Breintnall, Jr. TC N 1
Daniel, Joseph Marsh TC C 1
Darden, Charles Nevin TC C 0
Davenport, Guy Mattison TC C 2
David, Noble Jonathon TC C 1
Davidson, Curtis Ward TC C 0
Davidson, George R EC N 4

Washington, D. C.
Clayton, N. C.
Charleston, S. C.
Racine, Wis.
Johnstown, Pa.
Johnstown, Pa.
Union Grove, N. C.
Cranbury, N. J.
Middletown, Conn.
Raleigh, Tenn.
Pinnacle, N. C.
Norlina, N. C.
Philadelphia, Pa.
Sanford, Fla.
Newport News, Va.
Lexington, Ky.
Bartlesville, Okla.
Greenville, N. C.
Durham, N. C.
Albany, N. Y.
Ozone Park, N. Y.
Baltimore, Md.
Clinton, Ill.
Lynchburg, Va.
Macon, Ga.
Jennings, La.
Ruckingham, N. C.
Winter Park, Fla.
Rockville Center, N. Y.
Laurel, Miss.
Elizabeth City, N. C.
Winston-Salem, N. C.
Puerto Costes, Honduras
Durlam, N. C.
Columbus, Ohio
Charlotte, N. C.
Albany, Ga.
Tuscaloosa, Ala.
Sunflower, Kan.
Knoxville, Tenn.
Durham, N. C.
Palacois, Texas
Marshville, N. C.
Staten Island, N. Y.
Red Springs, N. C.
Philadelphia, Pa .
High Point, N. C.
Durham, N. C.
Tifton, Ga.
Lexington, Mass.
New Haven, Conn.
Mayesville, S.C.
Piniladelphia, Pa.
Short Hills, N. J.
Parkton, N. C.
Clinton, N. C.
Anderson, S. C.
Jacksonville, Fla.
Laurinburg. N. C.
Baltimore, Md.

Davis, Allen Clayton TC N 0
Davis, Bruce Griffin TC N 5
Davis, Charles Marion TC C 5
Davis, Crowley A. TC N 6
Davis, Donald Harding EC C 2
Davis, James Britt TC N 5
Davis, Robert Lee EC N 3
Davis, Verlon Swords TC N 3
Davison, Alexander Thayer TC C 2
Dean, John William TC C 2
DeFilippo, Joseph Martin TC C 2
DeHoff, Harold Lee EC N 4
Dellavedova, John TC C 1
Dellenbarger, Lynn Edwin, Jr. TC C 2
DeMott, Robert B. EC N 5
Dennerline, Fred W. TC C 3
Denton, William Henry EC N 5
DeRogotis, Albert John TC C 2
deShazo, Thomas Edward TC C 0
DeVane, Howard Tillman TC N 5
Dewberry, William C. TC C 1
Dewees, Philip Ernest TC C Spec.
Diamond, Gus TC C 1
Dick, Charles Ernest TC N 4
Dickerson, Ned TC C 2
Diener, Clayton Harry TC C Spec.
Dillard, William Elbert, Jr. TC N 5
Dillon, Thomas Patrick TC N 0
Dimmock, William Edward EC N 4
Ditchik, Jesse TC C 1
Doggett, Lewis Carpenter TC C 1
Dobson, Charles Madison TC N 4
Dolt, William TC C 2
Donnelly, Charles Ellis EC N 4
Dorsey, John Patrick TC N 4
Dorsey, John Phillip EC N 6
Dorsey, William R. TC N 5
Dorton, Spero Pete TC C 6
Doty, Robert McCurdy TC C 0
Douglas, Allen H. TC C 2
Douglas, Richard Sands TC C 3
Dowe, Carl Barnard TC N 5
Downes, Charles S. TC C 3
Drabent, Eugene Alphonse TC N 6
Drake, David Ewing TC C 4
Drake, John Charles TC C 2
Drewry, William Shepherd TC C 1
Dunaiski, Raymond Martin EC N 6
Duncan, Lewis William TC C 2
Dunn, Albert Wilkerson TC C 7
Dunn, Earl T. TC C 1
Dunn, Harvey Esterly TC C 6
Dunphy, James McGaughey TC N 4
Durham, Gilbert Vincent TC C 2
Earley, Vaughn Herman TC N 4
Early, Bert Hylton TC C 5
Earnest, Alfred Burks TC C 1
East, Albert Daniel TC N 3
Edmonds, Eugene Gardner TC C 0
Edwards, Arthur A. EC N 4

Sinyrna, Tenn.
Tallahassee, Tenn.
Tampa, Fla.
Memphis, Tenn.
Gastonia, N. C.
Birmingham, Ala.
Girard, La.
Atlanta, Ga.
Durham, N. C.
Stovall, N. C.
Bridgeport, Conn.
Baltimore, Md.
New Village, N. J.
Shaker Heights, Ohio
East Chester, N. Y.
Indianapolis, Ind.
Morganton, N. C.
Newark, N. J.
Fort Sill, Okla.
Elba, Ala.
Pensacola, Fla.
Durham, N. C.
Burgettstown, Pa.
Hensdale, Ill.
Canton, Ohio
Hutchinson, Kan.
Columbus, Ga.
Monroe, N. C.
College Park, Ga.
New York, N. Y.
Greenwood, S. C.
Little Rock, Ark.
Plainfield, N. J.
Savannah, Ga.
Columbus, Ohio
Minneapolis, Minn.
Pittsburgh, Pa.
Durham, N. C.
Lakewood, Ohio
Savannah, Ga.
Westfield, N. J.
Norfolk, Va.
Baltimore, Md.
Scranton, Pa.
Knoxville, Tenn.
Raleigh, N. C.
Drexel Hill, Pa.
Duluth, Minn.
Morganton, N. C.
Durham, N. C.
Durham, N. C.
Frederick, Md.
Lawrenceville, Ill.
Durham, N. C.
Lynwood, Calif.
Huntington, W. V.
Bethesda, Md.
Brandon, Miss.
Hampton, Va.
Brooklyn, N. Y.

Edwards, John Wiley EC N 4
Edwards, William Bacon TC C 7
Eike, Rodney TC C 0
Sinhorn, Elliot J. TC C Spec.
Einbinder, Sidney TC C 0
Eirich, Robert Lee TC C 0
Eliff, John Joseph TC N 4
Elkins, John Davis TC N 6
Ellender, John Willis EC N 4
Ellers, Norman Lee TC C 0
Ellis, John, Jr. EC N 5
Ellis, John G., Jr. EC N 4
Ellis, Walter Frank TC N 5
Ellison, Warren Frederick TC N 5
Ellsworth, John Charles TC C 0
Elmore, Oscar M. TC C 1
Elrod, William Alexander EC C 3
Emmons, Curtis Graham TC C 0
Engel, Marvin Franklin TC C 0
Epps, George F. EC N 4
Epstein, Gordon V. TC N 4
Erickson, Walter Bede TC C 0
Evans, Burt EC C 4
Evans, Daniel Edward TC N 2
Evans, Harold David TC C 1
Evans, Paul Franklin, Jr. TC C 1
Ezelle, John Wofford TC C 7
Ezerski, Frank Peter TC C 5
Fairey, Robert Lewis TC C 1
Fairy, William Arthur TC C 8
Fanjoy, Weldon Sutherland TC C 1
Farren, William Joseph TC N 6
Faulkner, Doc George, Jr. EC N 4
Feder, Richard Yale TC C 1
Fenley, William Franklin TC N 3
Fennell, Howard Earl TC N 4
Ferdinand, Thomas Francis EC N 4
Ferguson, Cortez Wright TC C 0
Ferguson, Garnett L., Jr. EC N 4
Ferguson, Junious Franklin, Jr. TC C 0
Fetherston, Joseph A. TC N 4
Fetner, Donald Hughey TC C 0
Fieldson, Jack Wilbur EC C 2
Findley, Joseph K. EC N 4
Fine, Ephraim Ailan TC C 3
Fink, Chester TC C 4
Fishe, Gerald R. A. TC C 1
Fitzpatrick, Julius Way TC N 6
Flagg, Raymond A. EC C 4
Flanders, Charles H. TC C 0
Fleming, Berkley Talmadge TC N 4
Fleming, James Carlton TC C 1
Fletcher, Thomas Gibson TC C 5
Fletcher, Westwood Hugh, Jr. TC C 0
Flynn, Arthur James TC N 4
Foister, Thomas Welch TC C 0
Forbes, Don B. TC C 2
Ford, Alfred Gust TC N 5
Foreman, Robert Evans TC C 8
Forrest, Otto Norman TC C 0

Oklumgee, Okla.
Mt. Vernon, N. Y.
Harrisburg, Pa .
Durham, N. C.
Columbia, S. C.
Baltimore, Md.
Bridgeport, Pa.
Salt Lake City, Utah
Pelly, Texas
Wilmington, N. C.
Pass Christian, Miss.
Richmond, Va.
Madisonville, Tenn.
Hinton, W. Va.
New Orleans, La.
Lincolnton, N. C.
Chadbourn, N. C.
Asbury Park, N. J.
Atlantic City, N. J.
Athens, Ga.
Union, N. J.
Bay Shore, N. Y.
Atlantic City, N. J.
Wilsonville, Ill.
Ellorie, S. C.
Lexington, N. C.
Gaffney, S. C.
Monessen, Pa .
Durham, N. C.
Burlington, N. C.
Statesville, N. C.
New York, N. Y.
Nashville, Tenn.
Closter, N. J.
Fort Worth, Texas
Pittsburgh, Pa.
Newark, N. J.
Greensboro, N. C.
Atlanta, Ga.
Durham, N. C.
Stroudsburg, Pa .
Durham, N. C.
McKees Rocks, Pa.
Browton, Ala.
Baltimore, Md.
Durham, N. C.
London, England
Cape May Ct. House, N. J.
Durham, N. C.
Durham, N. C.
Tupelo, Miss.
Martinsville, Va.
McColl, S. C.
Bradenton, Fla.
Pittsburgh, Pa.
High Point, N. C.
Parkersburg, W. Va.
Jamestown, N. Y.
Elizabeth City, N. C.
Washington, D. C.

Forsyth, Edison Lancelot TC N 3
Foster, Jack TC C 1
Foster, James Troy TC N 4
Foster, W. Phillips EC C 6
Fountain, Willian Emil TC N 4
Fourman, Gordon Dale TC N 1
Fox, John Lynn TC N 4
Fox, Ranson Cloud TC N 2
Foy, Thomas Franklin EC N 4
France, Roy H. EC N 7
Francis, Everett W. TC N 5
Frase, Ronald Glen TC N 6
Frate, Domenico Carlo EC N 6
Freelin, Raymond Keith TC N 4
Freeman, John Collins TC C 1
Freeman, Mark Dalton TC N 4
Freeze, Jack Edward EC C 2
French, Charles Graves TC C 8
Friauf, Robert James TC N 4
Friedli, Ernest K. EC N 5
Friend, Fred Erwin TC N 4
Frisch, Joseph EC C 6
Frischmann, Charles Peter TC C 1
Fritz, Albert Robert, Jr. TC C 3
Frye, Jerry Lybrand TC C 0
Frye, Robert D. TC C 1
Fuchs, F. J. EC C 3
Fugale, Frank William TC N 4
Funk, Muncy E. TC C 0
Gabellini, John Joseph TC N 4
Gaines, Sidney Care TC N 4
Galloway, Ray Mayer TC N 6
Gamble, Bryant O. TC C 2
Gannon, John Joseph TC N 1
Garber, Mark Edward TC C 0
Garcia, Reynaldo S. TC C 1
Garcia de Quevedo, Guillermo TC C 3
Gardner, Robert Randolph TC N 4
Garland, Samuel Albert TC C 3
Garrett, Frank TC C 5
Garside, Joseph J. TC N 4
Garthe, Henry Carl TC N 4
Gatling, James Edward TC C 1
Gattis, Walter R. TC C 7
Gautier, Elmer Henry, Jr. EC N 3
Geier, John Josepin EC N 6
Gelgason, Hordur TC C 7
Gerke, John R. TC C 5
Geyer, George Robert TC C 1
Gibson, Charles lrvin EC N 4
Gibson, George Clifford TC C 0
Gibson, Norman Gilbert TC C 1
Gifford, James Hugh TC C 0
Gifford, Neil Allen TC C 0
Gilbert, Edwin Glenn, Jr. TC C 0
Gilbert, Olin Englar, Jr. EC N 4 Gilbertson, John Robert TC N 1
Gill, Robert C. TC C 1
Gillette, John Burton TC C 1
Gilliam, Robert Lawrence, Jr. TC C 1

Henderson, N. C.
Mountain Lakes, N. J.
Alicia, Ark.
Andover, Mass.
Monroe, N. C.
Knoxville, Tenn.
Emlenton, Pa.
Morganton, N. C.
Richmond, Va.
Spartanburg, S. C.
Wilmington, Del.
Hamburg, N. Y.
Baltimore, Md.
Anadarke, Okla.
Evanston, Ill.
Tallulah, La.
Charlotte, N. C.
Clintwood, Va.
Arlington, Va.
Brooklyn, N. Y.
Laurenceburg, Tenn.
Durham, N. C.
New York, N. Y.
Brooklyn, N. Y.
Gastonia, N. C.
Gastonia, N. C.
Greenfield, Mass.
Salem, Mass.
Woodstown, N. J.
Allentown, Pa .
Columbia, S. C.
Wilmington, N. C.
Baltimore, Md.
Orange, N. J. .
Carlisle, Pa.
Utuado, P. R.
Santurce, P. R.
Columbia, Tenn.
Salisbury, N. C.
High Point, N. C.
Fairmont, W. Va.
Baltimore, Md.
Norfolk, Va.
Durham, N. C.
Pascagoula, Miss.
Rochester, N. Y.
Isafjoodur, Iceland
Charlotte, N. C.
Middletown, Pa .
Chicago, Ill.
Greenville, S. C.
Waycross, Ga.
Cherry Point, N. C.
Estill, S. C.
Atlanta, Ga.
Raltimore, Md.
Roslindale, Mass.
Pelham Manor, N. Y.
Wilson, N. C.
Winston-Salem, N. C.

Gilliland, John Herschal TC N 1
Gilpin, Roy Edwin, Jr. TC N 6
Gimler, John Robert TC C 0
Given, Joseph Hampton TC C 0
Gladden, Alton A. TC C 4
Glos, Richard Corbin TC C Spec.
Gniadek, Henry M. TC N 4
Glover, Horace Sluman EC N 5
Gobbel, John Temple, Jr. TC C 1
Gochnauer, Richard B. EC N 4
Goeke, William Henry TC N 5
Goley, Willard Coe TC C 1
Goldsmith, Edward Gordon, Jr. EC N 4
Goodfellow, Murray Fickes TC C 1
Goodman, Bruce Kay TC N 4
Goodman, Fred Watson TC C 1
Goodson, Phillip L., Jr. TC C 3
Goodwill, William Ferguson TC C 2
Gordon, Richard Wesley TC C 0
Gorsuch, Thomas Leonard TC C 3
Goss, Meredith Roy TC N 4
Goss, Natale Joseph TC N 1
Gouch, Richard John TC N 3
Grant, Thomas G., Jr. TC N 4
Gray, Irving Smith EC C 3
Grayson, David Dillard TC C 1
Greco, John TC N 1
Greene, John Patterson TC C 8
Greenleaf, Thomas Raymond TC N 1
Greenman, Harlan Ray EC N 5
Griffin, Charles Eugene TC C 4
Griffin, Eugene Wilson EC N 4
Griffin, Russell Edward TC N 5
Griffin, William A. TC C 4
Griffith, James Leo TC N 5
Griffith, Norman Early, Jr. TC N 4
Griffith, Richard Matthews, Jr. TC N 4
Grigg, Womble Quay, Jr. TC C 0
Griggs, Eugene Schenck TC C 6
Grimes, David Collins TC N 4
Grissett, John Eliot TC N 4
Groff, Allan William TC C 2
Grose, George B. TC C 2
Groshens, David Eldridge, Jr. TC C 0
Grover, Carl Atwood TC C 0
Gruber, Sol EC N 6
de la Guardia, Jaime TC C 6
Guinee, William Fenton, Jr. TC C 0
Gurganus, Wallace Glenn TC N 2
Gurley, Elbert Luther EC N 4
Gurley, Joseph Grafton EC N 4
Gutowski, Eugene TC N 0
Haas, Thomas Milton TC N 4
Hackett, Robert Charles TC C 0
Hackett, William Edward TC C 0
Haines, Robert Earl TC C 0
Hakan, Morton Joseph TC N 6
Hall, Bruce Duane TC N 4
Hall, Charles Moore TC C 0
Hall, Earl Wayne TC N 4

Utica, Pa .
Carson, Iowa
Bernardsville, N. J.
Elizabethton, Tenn.
Annapolis, Md.
Tampa, Fla.
Chicago, Ill.
Starrucca, Pa.
Chapel Hill, N. C.
Baltimore, Md.
Detroit, Mich.
Graham, N. C.
Tampa, Fla.
Hanover, Pa.
Highland Park, Ill.
Kannapolis, N. C.
Greenville, N. C.
Miami, Fla.
Jacksonville, Fla.
Baltimore, Md.
Seiling, Okla.
Pittsburgh, Pa.
New Orleans, La.
Tulsa, Okla.
Freeport, N. Y.
Dallas, Texas
Hewlett, N. Y.
Jacksonville, Fla.
Downingtown, Pa.
Battle Creek, Mich.
Los Angeles, Calif.
Oklahoma City, Okla.
Battle Creek, Mich.
Durham, N. C.
Hambleton, W. Va.
Charlotte, N. C.
Pasadena, Calif.
Sylva, N. C.
New Brunswick, N. J.
Newman, Ga.
DeLand, Fla.
Lancaster, Pa .
St. Paul, Minn.
Glenside, Pa.
Altoona, Pa .
New York. N. Y.
Panama City
New Orleans, La.
Greenville, N. C.
Lenoir, N. C.
Richmond, Va.
Wilmington, Calif.
Mobile, Ala.
Philadelphia, Pa .
Philadelphia, Pa .
Catskill, N. Y.
Joplin, Mo.
Tulsa, Okla.
Elizabethtown, N. C.
Oklahoma City, Okla.

Hall, Frank Dawson TC C 1
Hall, James Curtis TC N 5
Hall, Leonard R., Jr. TC C 2
Hall, Rudolph Hamilton TC N 5
Halliday, William Neil TC N 3
Halsey, John Jones TC N 1
Hamilton, Charles R. TC C 5
Hamilton, Neill Quinn EC N 5
Hammett, Gordon Charles, Jr. EC N 4
Hampton, George Forrest EC N 4
Hampton, William Edgar EC C 3
Haney, John Norman EC N 4
Hankins, William Edward, Jr. TC C 1
Hanna, Philip, Jr. TC N 4
Hanni, Serman Squire TC N 5
Hanson, Charles TC C 2
Hanson, Earl Clarence TC N 1
Haralson, Prescott H. TC C 5
Harang, Jacques Pierre TC N 1
Hardee, E. Bacon TC C 0
Harden, Milton Ray EC N 4
Hardigree, Sidney Curtis TC N 5
Hardin, John Ralph, III TC N 1
Hardman, Wallace Jackson EC N 4
Harmon, Max Carr TC.C 1
Harrill, James Clinton TC C 0
Harrill, Ulysses Janson TC C 2
Harrington, Thomas S. TC C 4
Harris, Allan R. TC C 0
Harris, Thomas Burrell TC C 1
Harriss, Clyde Hampton TC C 1
Harry, Ernest Howard, Jr. TC C 0
Hart, James Everette TC C 1
Hartung, Francis Conrad, Jr. TC N 1
Harvey, Frank Herbert TC N 1
Harward, Stephen Cannada TC C 7
Harwood, Joe Thomas TC C 0
Haskins, Dennis Button, III TC N 0
Hastings, Richard Owen EC N 5
Hatcher, Edgar A., III TC C 4
Haun, Warren Scott EC N 4
Havens, Robert S. TC N 4
Hawes, Raymond Burke TC N 1
Hawkins, Donald Floyd TC N 4
Hawkins, James Wendell TC C 1
Hawkins, John Baxter, Jr. TC N 0
Hawley, Maurice Addison, Jr. TC N 4
Hay, Richard Warren TC N 1
Hayden, Daniel Lee TC C 4
Hayes, Leonidas Braxton TC C 4
Haxlitt, John Madden, Jr. TC N 4
Heald, James Hamilton TC N 4
Heckman, Jerome Harold TC N 4
Heebink, David Van Driest TC N 1
Heffner, James J. TC N 5
Heller, Paul Edward TC C 0
Helm, Carl Edward TC N 1
Henderson, J. J., Jr. TC C 6
Hendricks, Frederick Richard TC C 0
Hendrickson, Bartlett Roy TC C 0

Coral Gables, Fla
Galax, Va.
Bristol, Va.
Dahlgreen, Va.
Columbus, Ohio
Southampton, N. Y.
Arlington, Va.
Pittsburgh, Pa.
San Francisco, Calif.
Signal Mountain, Tenn.
Durham, N. C.
Grandview, W. Va.
Christiansburg, Va.
Hinsdale, Ill.
Painesville, Ohio
Geneva, Ill.
Cranston, R. I.
Tulsa, Okla.
New Hyde Park, N. Y.
Durham, N. C.
Durham, N. C.
Athens, Ga.
Newark, N. J.
Glenville, W. Va.
Kannapolis, N. C.
Gaffney, S. C.
Gaffney, S. C.
Henderson, N. C.
Milton, Mass.
Charlotte, N. C.
Salisbury, N. C.
Gabbettville, Ga.
Waycross, Ga.
Piniladelphia, Pa .
New York, N. Y.
Durham, N. C.
Albemarle, N. C.
Chattanooga, Tenn.
Chattanooga, Tenn.
High Point, N. C.
Memphis, Tenn.
Jordan, N. Y.
Northport, N. Y.
Tustin, Calif.
Kingsport, Tenn.
Cowan, Tenn.
Fayetteville, N. C.
Roslyn, Pa.
Huntington, W. Va.
Greensboro, N. C.
Pauls Valley, Okla.
River Forest, Ill.
Washington, D. C.
Morgantown, W. Va.
Richmond, Va.
Huntington, W. Va.
Shelton, Conn.
Wendell, N. C.
Matewan, W. Va.
Washington, D. C.

Henry, Norman Albert TC N 4
Henry, William Theron EC N 4
Herlon, Bettis Grigsby TC C 0
Herran, Rafael Castellanos TC C 0
Herrick, John W. TC C 0
Herrington, Robert Carl TC C 0
Herriott, Donald Richard TC N 1
Hersman, George J. EC N 6
Hess, Donald Gilbert TC C 0
Hewett, Ertle B. EC N 4
Hewett, Jack Herbert TC N 4
Hicks, Julius Norton TC C 0
Higginbothom, William E. TC N 6
Hill, Charles Edward EC N 4
Hill, James G. EC C 4
Hill, Joseph Emmett TC N 0
Hill, Ralph Frederick TC C 0
Hillman, Edgar Lafayette, Jr. TC C 1
Hines, Gulmer Augustus, Jr. TC C 1
Hinman, Donald Livingston TC C 0
Hinnant, Harris Odom TC N 3
Hinson, Garland Theodore TC C 0
Hinson, William Talmadge TC C 4
Hipps, Herbert Greene TC C 1 Hodges, Charles Roland TC C 1
Hodges, William Starnes TC C 0
Hodgin, Lyman Edward TC C 5
Hodgkins, Lewis TC C 1
Hodgkins, Norris Lowell TC N 5
Hodson, Thomas Sherwood TC N 4
Hofmeister, George Carl EC N 5
Hogan, John Thomas TC C 1
Hogg, Harold Hubert TC C 1
Hoke, John Humphreys TC N 6
Holbrooks, Harold Douglas TC C 1
Holder, Clarence Perry EC N 6
Holland, Ray Walter EC N 5
Holley, Horace Preston TC 0
Hollinshead, Earl Darnel, Jr. TC N 3
Holmes, Brandon M. EC N 5
Holroyd, William Casper TC C 4
Holt, Bevley Dan EC N 4
Holtan, Hans Olaf EC C 2
Holton, Holland Young TC C 5
Holzinger, George C. TC C 1
Hood, Howard James TC C 0
Hooker, Raymond Cottrell TC C 4
Hooks, Johnny Max TC C 1
Hopkins, John James TC N 1
Hoppin, Stuart Bliss TC C 0
Horan, John Edward, Jr. TC N 1
Horn, Robert Campbell TC N 1
Horn, William Carl TC N 6
Horne, Harold Claude TC C 1
Horowitz, Nathan TC C 2
Houtz, Jesse Frank TC C 3
Howe, William B.W., Jr. TC C 1
Howell, Alfred Gordon TC N 6
Huckabee, Robert C. TC C 1
Hudspeth, Thomas Harold TC N 1

Williamsport, Pa .
Arlington, Va.
Saluda, S. C.
Bogota, Colombia
Washington, D. C.
New Bern, N. C.
Chatham, N. J.
Grand Rapids, Mich.
Farmington, Utah
Wilmington, N. C.
Durant, Okla.
Enterprise, Ala.
Shreveport, La.
Ridley Park, Pa.
Bronxville, N. Y.
Tampa, Fla.
Hendersonville, N. C.
Rocky Mount, N. C.
Rutherfordton, N. C.
Oswego, N. Y.
Ridgeway, S. C.
Whiteville, N. C.
Marshville, N. C.
Spruce Pine, N. C.
Ft. Lauderdale, Fla.
Dresden, Tenn.
Charlotte, N. C.
Southern Pines, N. C.
Southern Pines, N. C.
Hendersonville, N. C.
Pittsburgh, Pa.
Durham, N. C.
Pittsburgh, Pa.
Rossford, Ohio
Kannapolis, N. C.
Blakeley, Ga.
Afton, Tenn.
Aiken, S. C.
Library, Pa.
Statesville, N. C.
Greenwood, S. C.
Milan, Tenn.
Westerleigh, N. Y.
Durham, N. C.
Larchmont, N. Y.
Baltimore, Md.
Richmond, Va.
Charlotte, N. C.
New York, N. Y.
Framingham, Mass.
Danbury, Conn.
Manhasset, N. Y.
Elmhurst, I11.
Raleigh, N. C.
Wilmington, N. C.
Fayetteville, N. C.
Hendersonville, N. C.
Howison, Miss.
Durham, N. C.
Yadkinville, N. C.

Huelser, George Wells TC C 4
Huey, Henry Jeremiah, Jr. TC N 0
Huffman, John Wesley TC C 8
Huggins, Douglas Frank EC N 4
Hughes, Lawrence Josiah TC N 5
Hull, Ezekiel H. TC C 4
Hull, Robert Harrison TC C 0
Hunt, Francis Milton TC C 1
Hunt, Raymond James TC N 6
Hunter, William Cecil, Jr. EC N 4
Hutchinson, Ronald Lee EC C 6
Hutto, Clinton B. TC N 3
Hutton, William Caldwell EC N 4
Inabinet, William Morris TC N 4
Ingber, Lawrence TC C 0
Ingram, Samuel Turner TC C 0
Ingram, Stuart I. TC C 2
Inman, Charles E. TC C4
Irlbacher, John M. EC C 2
Irwin, George Leigh TC C 1
Jackson, Harold Mackenzie, II TC C 1
Jackson, John Jerrold TC C 1
Jackson, Lowell Robert TC N 4
Jackson, Oras Neal EC N 3
Jackson, Philip Wilford TC C 0
Jackson, William Hutchinson TC C 0
Jacobs, Roland Arthur TC N 1
Jakob, Werner Leonard TC C 4
Jamieson, William Harry EC C 5
Jarvis, George Robert EC N 4
Jarvis, Hallett W. TC C 6
Jenkins, Martin Edward TC C 0
Jenks, Robert Henry TC N 1
Jennings, Caleb Brown, Jr. TC N 5
Jennings, William Beatty, Jr. TC C 1
Jilcott, Clarence Poe EC N 7
Johnson, Charles Thomas TC C 3
Johnson, Eugene B. EC C 3
Johnson, Frederick Wayne TC N 3
Johnson, Robert Bruce TC C 0
Johnstone, George Harvey TC N 1
Jolliff, Bruce Holden TC N 3
Jones, Bruce Redmond TC N 1
Jones, Donald Richard, Jr. TC N 0
Jones, George Poole TC C 1
Jones, Howard Bird TC C 2
Jones, John TC N 0
Jones, John Paul TC N 0
Jones, Ray Simpson TC C 0
Jones, William Jackson TC N 3
Jordan, Samuel C. EC C 8
Josey, John Speir TC C 5
Judge, Richard B. EC N 5
Kagarise, Ronald Eugene TC N 4
Kalb, John Floyd, Jr. TC N 1
Kamstra, John Adrian TC N 1
Karl, Lawrence Oswald TC C 1
Karmatz, Franklin N. TC N 1
Kasparian, Robert TC N 5
Kaufmann, Roger Allyn TC N 4

Staten Island, N. Y.
Milan, Tenn.
Huntington, W. Va.
Allanta, Ga.
Quincy, Ill.
Reidsville, N. C.
Charlotte, N. C.
Danville, Ky.
Chicago, Ill.
Phoenix, Ariz.
Duncan, W. Va.
Perry, S. C.
Collierville, Tenn.
Monroe, La.
Cyndwyd, Pa.
Taylorsville, N. C.
Bristol, Tenn.
Fairmont, N. C.
Mamaroneck, N. Y.
Chester, S. C.
Charlotte, N. C.
Larchmont, N. Y.
Salt Lake City, Utah
Edinbury, Texas
Binghampton, N. Y.
Shreveport, La.
Roosevelt, L. I., N. Y.
Roselle, N. Y.
Patchogne, N. Y.
Winnetka, Ill.
Charleston, S. C.
Philadelphia, Pa .
Englewood, N. J.
Spartanburg, S. C.
Fayetteville, N. C.
Kelford, N. C.
Red Springs, N. C.
Brooklyn, N. Y.
Jamestown, N. C.
Norfolk, Va.
Knoxville, Tenn.
Enka, N. C.
Springfield, N. J.
Chattanooga, Tenn.
High Point, N. C.
Clearwater, Fla.
Erie, Pa.
Phil Campbell, Ala.
Kinston, N. C.
Commerce, Ga.
Macon, Ga.
Bartow, Ga.
Wilmington, Del.
Roaring Springs, Pa .
Kittanning, Pa .
Ridgewood, N. J.
Ford City, Pa.
Highland Park, N. J.
Youngstown, Ohio
Tulsa, Okla.

Kaus, Tyler G. TC C 0
Kea, Kirk, Ira, Jr. EC N 5
Kearney, Milton TC C 0
Kelley, Frederick Edward, Jr. TC N 1
Kelley, Stanley O. TC C 0
Kelley, Warren James TC C 2
Kellogg, Robert G. TC C 1
Kelly, John Vincent EC N 6
Kendrick, Oliver S. TC C 0
Kennedy, Charles Ross, Jr. TC N 0
Kennedy, James M. TC N 6
Kent, Richard Thursby TC N 4
Kerr, George Thomas TC C 0
Ketchem, Vern Albert TC C 5
Kidd, Charles Wyndham TC N 5
Kimbrell, Odell C., Jr. TC C 4
Kimpflen, Joseph F. EC N 5
Kindler, Jack TC C 1
King, Joseph Calvin EC N 7
King, Parks McCombs TC C 3
King, Robert Calvert TC C 0
Kingery, Lisle B. TC C. Spec.
Kingery, Robert Elliott TC C 1
Kirby, Robert William TC C 0
Kirchner, Leo Gerald TC N 1
Kirk, Robert Louis TC C 6
Kirkpatrick, Ronald Eugene EC N 4
Kizer, Alexander Hoke, Jr. TC N 2
Klause, Joseph Edward TC N 1
Klein, David Robert TC N 1
Klein, Morton EC N 6
Kleist, Roy Franklin TC N 5
Kloss, Lester K. TC N 5
Knaepen, Henry Joseph TC N 1
Knight, Roland McKittrick TC C 1
Knott, Gerald Wesley TC C 0
Knudsen, Gaylord Duane EC N 3
Koenig, Elmer August EC N 6
Koestline, Charles Norman TC C 1
Koffenberger, Edward LeRoy EC N 5
Kohler, John Dawson TC N 1
Kowalski, Ludwig Robert EC N 4
Kramer, William Robert TC N 1.
Krecker, Bruce Drake TC N 1
Krisza, John TC N 6
Krout, William Alfred TC C 1
Kuhlman, Ormand F. EC N 6
Kulow, Frederick C. TC N 6
Kunkel, Harry Edward, Jr. TC N 1
Kunkle, Craig B. EC C 2
Kurz, Herbert George TC N 5
Laakso, Leslie R. TC N 6
Lacey, James Robert TC C 0
Ladd, Richard F. EC N 3
Lamb, Warren S. TC N 6
Lamotte, Louis C. TC C 3
Lamparter, William Smith TC C 6
Land, Morton Lewis TC C 4
Landon, Horace Gordon TC C 1
Landreth, Kenneth Carlos TC N 0

Rye, N. Y.
Richmond, Va.
Franklinton, N. C.
New Bedford, Mass.
Gainesville, Fla.
New Canaan, Conn.
Asheville, N. C.
Jackson Heights, N. Y.
Sylacauga, Ala.
Huntsville, Ala.
Salisbury, N. C.
Carbondale, Pa .
Durham, N. C.
Cleveland Heights, Ohio
Winthrop, Mass.
Durham, N. C.
Philadelphia, Pa.
Passaic, N. J.
Leaksville, N. C.
Charlotte, N. C.
Richmond, Va.
White Plains, N. Y.
White Plains, N. Y.
Spencer, N. C.
Lancaster, Pa.
Elkins Park, Phila., Pa.
Covington, Ky.
Brevard, N. C.
Philadelphia, Pa.
Buckland, Conn.
New York, N. Y.
Waterbury, Conn.
Sharon, Pa.
Ridgewood, N. J.
Belton, S. C.
Oxford, N. C.
Omaha, Neb.
Libertyville, Ill.
Thomasville, N. C.
Wilmington, Del.
Westfield, Mass.
Bellville, N. J.
Bogota, N. J.
Red Lion, Pa.
McKees Rocks, Pa.
Covington, Ky.
Elmore, Ohio
Milwaukee, Wis.
Verona, Pa.
Johnstown, Pa.
New Orleans, La.
Edwin Junction, Mich.
Newark, N. J.
Tulsa, Okla.
William Island, Neb.
Maxton, N. C.
Highland Park, N. J.
Baltimore, Md.
Eden, N. Y.
Pikeville, Tenn.

Langford, Thomas C., Jr. TC C Auditor
Lane, Harold Compton TC C 0
Lankford, Wilbur TC C 6
Lanning, Richard Lester TC C 1
Lantz, William McGowan, II TC C 0
Larkin, Israel Shirk EC N 5
Latchworth, Troy, Jr. TC C 0
Latimer, Starr Orion EC N 5
Latkowski, Norbert Leon TC N 4
Lau, John Leslie TC C 1
Lawandales, Andrew Frank TC C 1
Lawhorne, Paul Augustus TC C 0
Lawless, Joseph Thomas, III EC N 4
Lawrence, Wilbur Hook TC N 1
Lawson, Thomas T. TC C 4
Lawton, Robert Oswald TC C 5
Leary, Robert E. TC N 4
LeBrock, Russell, Jr. EC N 4
Lee, James Harold TC C 4
Lee, Douglas Elmo EC N 4
Leggett, Wilbur Philmon TC C 0
LeGore, Norman Chester TC C 0
Leinung, John G. TC N 5
Leisy, Melvern K. TC C 3
Leitner, Paul R. TC C 1
Leitzinger, William A. E., Jr. TC N 1
Lemmon, John Parke, Jr. TC N 4
Lenhart, Arthur Tennyson, Jr. TC N 1
Lent, Robert E. EC N 6
Lenz, Henry M. TC N 4
Lerner, Martin William TC N 4
Lesley, Harold League TC N 3
Letters, Howard Wesley, Jr. TC N 4
Levin, Burton Ernest TC C 1
Levin, David Harold TC C 1
Levy, John A. TC C 2
Lewis, William Earl TC N 0
Lieving, Robert E. EC N 5
Liles, Brooks Johnathan TC C 0
Lineberry, Leonard Winfield TC N 0
Link, Harvey Jay TC C Spec.
Linker, Edward Markham EC N 4
Liotti, Anthony Ernest TC N 1
Little, Charles Edward TC C 5
Little, William Henry TC N 3
Livesay, Joseph Stanley, Jr. TC N 3
Llewellyn, Linas William EC N 4
Lockhart, David K. EC C 7
Long, Frederick LeRoy TC N 5
Longley, Clarence M. TC N 5
Loser, Theodore Charles, Jr. TC N 1
Loucks, Robert LaMonte TC C 3
Loughran, Joseph Louis TC N 4
Love, Nash Monroe EC N 6
Love, Roderick Milnor, Jr. EC C 5
Lowe, Donald S. TC N 6
Lowe, Elwyn Hardin TC C 1
Lunsford, Thomas Vickers TC C 0
Luttrell, John Lore EC N 4
Lyon, William H. TC C 3

Orangeburg, S. C.
Rutherfordton, N. C.
Elon College, N. C.
Trenton, N. J.
Elmira, N. Y.
St. George, Utah
Hampton, Va.
St. Petersburg, Fla.
Chicago, Ill.
Port of Spain, Trinidad
Charleston, S. C.
Greensboro, N. C.
Norfolk, Va.
Effingham, S. C.
Erwin, Tenn.
Greenwood, S. C.
Philadelphia, Pa .
Hinsdale, Ill.
Charlotte, N. C.
Cruger, Miss.
Lumberton, N. C.
Vineland, N. J.
Bronx, N. Y.
Dallas, Texas
Knoxville, Tenn.
Clearfield, Pa .
Wilmington, Del.
Wilmington Manor, Del.
Minneapolis, Minn.
Chicago, Ill.
Philadelphia, Pa .
Seneca, S. C.
Crafton, Pa.
Fishkill, N. Y.
Pensacola, Fla.
Rye, N. Y.
Knightdale, N. C.
Mason, W. Va.
Raleigh, N. C.
Raleigh, N. C.
Scranton, Pa.
Chapel Hill, N. C.
Brooklyn, N. Y.
Norfolk, Va.
Decatur, Ga.
Newport, News, Va.
Chattanooga, Tenn.
Durham, N. C.
Lennon, Mich
Orlando, Fla.
Jonestown, Pa.
Baltimore, Md.
Philadelphia, Pa.
Charlotte, N. C.
Durham, N. C.
Key West. Fla.
Jacksonville, Fla.
Haines, Fla.
Memphis, Tenn.
Creedmoor, N. C.

McAlister, Fred Ranson, Jr. TC N 2 McCandless, Dean TC C 8
McCarrick, Addison Taylor EC N 5 McCarthy, Charles Vincent TC N 1 McCarthy, Robert Charles TC N 5 McClamroch, William Porter TC C 4 McClements, James Burns, III TC N 1 McCloskey, William Francis, Jr. TC N 5
McConnell, Forrest, Jr. TC C 1
McConnell, John William TC N 1
McCord, Wilfred M., Jr. TC N 0
McCullen, William H. TC C 1
McCully, Alvin Charles TC C 1
McCutcheon, Gordon Douglas TC C 3
McDonald, John Caldwell TC N 0
McDonald, Neil jarvis TC C 1
McDonald, Raymond O., Jr. TC N 6
McGahan, Richard Dan TC C 0
McGahee, Wilton Clifford EC N 4
McGee, Harry Hand, Jr. TC C 3
McGowan, Keith Dunham EC N 7
McGrane, Arthur Joseph EC C 7
McGreevey, Robert Dillon TC C 3
McGuire, Francis Darrell, Jr. EC N 4
McGuire, Lee Webster TC N 4
McIver, Robert Norton TC N 5
McKay, Richard Lynn TC N 4
McKeon, James K. TC C 0
McKee, William D. EC N 7
McKeowen, Beverly Hicks TC N 5
McKinnon, Cyril John TC C Spec.
McKnight, Thomas Morton TC N 3
McKoy, James Benjamin, Jr. TC N3
McLarty, Colin Slator EC N 5
McLean, William Campbell TC C 1
McLennan, Kenneth Robert TC N 4
McLeod, Henry Lawrence TC C 1
McLeod, Thomas Bragg TC C 1
McMaster, Quay Williford TC C 3
McNeely, Irwin Hollar TC C 1
McNeill, Raymond Stuart TC N 1
McNeill, Robert Edward TC N 3
McPartland, Francis Xavier TC N 1
McPhaul, John Henry TC C 0
McRae, Marshall T. EC C 3
Maas, John Peter TC N 1
MacArthur, David Warren TC C 1
MacArthur, Eugene Robert EC C 6
Madlon, Eugene August EC N 4
Magee, William Edwin TC C 2
Magennis, John Joseph TC N 5
Maginnis, James Barrett TC N 6
Magruder, Roy TC C 1
Maguire, Robert Albert TC C 5
Mairs, Daniel Atlee TC C 4
Major, Howard Leroy TC C 1
Malcolm, Robert S. TC C 5
Malloy, Justin W. EC N 4
Mallers, John David TC C 0
Mangum, Jack F. TC C 2

Matthews, N. C.
St. Johns. Kans.
Philadelphia, Pa.
Beverly, Mass.
Pittsburgh, Pa.
Durham, N. C.
Pittsburgh, Pa.
Brunswick, N. J.
Montgomery, Ala.
Ashland, Pa.
Memphis, Tenn.
Maplewood, N. J.
Ventnor, N. J.
St. Petersburg, Fla.
Charlotte, N. C.
Anderson, S. C.
Tampa, Fla.
Greenfield, Mass.
Atlanta, Ga.
Savannah, Ga.
Waycross, Ga.
Brooklyn, N. Y.
Garden City, N. Y.
Maywood, Ill.
Prescott, Ark.
Richmond, Va.
Enid, Okla.
Cynwyd, Pa.
Forest Hills, N. Y.
Memphis, Tenn.
Detroit, Mich.
Murfreesboro, Tenn.
Atlanta, Ga.
Swarthmore, Pa.
Tampa, Fla.
Atlanta, Ga.
Johns, N. C.
Broadway, N. C.
Tampa, Fla.
Morganton, N. C.
Lynnbrook, N. Y.
Wade, N. C.
Bergenfield, N. J.
Red Springs, N. C.
Maxton, N. C.
Georgetown, Conn.
Brighton, Mass.
Leesville, La.
Ferdinand, Ind.
McCall, S. C.
Trenton, N. J.
Baltimore, Md.
Washington, D. C.
Bergenfield, N. J.
Charleston, W. Va.
Pensacola, Fla.
Dayton, Ohio
Washington, D. C.
Chicago, Ill.
Hamlet, N. C.

Mann, James Albert TC C 0
Manon, Joseph Paul, Jr. TC N 1
Mappus, Theodore Tobias, Jr. TC N 5
Marchal, Lawrence Nolan TC N 5
Markey, Gerald Joseph TC N 4
Markowitz, Herbert B. TC C 1
Marlow, Ernest Grant TC C 0
Marquardt, Meril Eugene TC N 4
Marshall, Ted Hall TC C 1
Martin, Francis B., Jr. EC N 4
Martin, Joel Estes TC C 1
Martin, Thomas N. TC C 2
Martinex, David Gordon TC N 4
Maruschak, Peter EC N 6
Marx, James Henry TC N 5
Mason, Jacob William TC C 0
Mason, Paul Benedict TC N 1
Massey, Harold, Jr. TC N 1
Massey, William Halliburton, Jr. EC N 4
Massi, Arthur C., Jr. TC N 4
Masson, James E. TC C 3
Masters, Richard Warren EC N 6
Masters, William Joseph TC N 1
Matheson, Julius Daniel, Jr. TC N 6
Mathews, Vance B. TC C 0
Mathis, William Lowrey EC N 4
Mathisen, Glenn Estes TC C 5
Matthews, Fred Rittenhouse TC N 1
Matthews, Thomas Hill TC C 1
Matzen, Robert T. TC N 5
Maupin, Charles C. TC N 4
Maurer, James Walter TC N 1
Maury, Ernest TC C 0
Mavromates, Stanley Peter TC C 1
Maxey, Charles Robert TC N 4
Maxwell, John Murdock TC N 2
Maxwell, John Terry TC N 4
May, Henry S. TC C 4
Mayo, Jesse Claude TC C 0
Meade, Richard Alburn TC N 5
Meadows, Richard Lynn TC C 4
Meara, Robert F. TC C 1
Mebane, David Philip TC C 1
Meece, Oscar James TC N 0
Melero, Andres T. TC C 5
Melton, Thomas Alexander, Jr. EC C 2
Meltzer, Allan Harold TC C 0
Menna, Joseph こC N 6
Mentrup, Christian Robert TC N 2
Merritt, Francis L., Jr. TC C 2
Merritt, MacAllister TC C 3
Mesce, Louis Michael EC C 2
Messer, Henry Davis TC C 4
Metcalf, Boyd Hendren TC C 1
Middlesworth, Chester Paul TC C 1
Millar, William Imber TC C 1
Millen, Charles David TC C 0
Millenson, Donaid Harvey EC N 5
Miller, Arthur TC C 0
Miller, James Herbert, Jr. TC C 4

Greensboro, N. C.
Charleroi, Pa.
Charleston, S. C.
Gary, 111.
Minneapolis, Minn.
Reading, Pa.
Front Royal, Va.
Denver, Colo.
Camden, S. C.
Clarksburg, W. Va.
Charlotte, N. C.
Oak Hill, W. Va.
Lus Angeles, Calif.
Altoona, Pa .
Kaukauna, Wis.
Milford, Conn.
Gloucester, Mass.
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Bristol, Pa.
Miami, Fla.
Hershey, Pa.
Kittanning, Pa .
Thomson, Ga.
Darby, Pa.
Memphis, Tenn.
Norfolk, Va.
Glenside, Pa .
Rocky Mount, N. C.
Grand Island, Neb.
Dallas, Texas
Huntington, Pa .
Caracas, Verre Zula
Mt. Vernon, Ohio.
Shawnee, Okla.
Daystrom, N. C.
Pasadena, Calif.
Haw River, N. C.
Rocky Mount, N. C.
Flint, Mich.
Knoxville, Tenn.
Glen Park, N. J.
Tryon, N. C.
Kingsport, Tenn.
Puerta de Tierra, P. R.
Durham, N. C.
Broolline, Mass.
New Haven, Conn.
Daytona Beach, Fla.
Montpelier, $\mathrm{Vt}_{\mathrm{t}}$.
Atlanta, Ga.
Newark, N. J.
Madison, Fla.
Chevy Chase, Md.
Statesville, N. C.
Waynesville, N. C.
Gastonia, N. C.
Denver, Colo.
Mt. Vernon, N. Y.
Moorehead, N. C.

Miller, Jesse Edward TC N 5
Miller, Joseph Thomas EC N 3
Miller, Lovick, Jr. TC C 4
Miller, Norman iI. TC C 4
Miller, Richard Hershey EC N 4 Miller, Richard Kendall TC N 4 Millner, Bollin Madison TC C 0 Milone, Robert Louis EC N 4
Miner, Richard Warren TC C 0 Mirabito, Thomas William EC N 4
Mitchell, George William, Jr. TC C 0
Mitchell, John William EC N 5
Mitchell, Raymond Warren TC N 4
Mittle, Harold Lee TC C 7
Molesko, John TC C 1
Moley, Michel IC N Cpec.
Moll, Oswin William TC N 1
Montague, Richard Beasley TC C 0
Moore, Donald Reese TC C 1
Moore, Elliott L. TC C 2
Moore, Paul DeCosta TC C 1
Moore, Randolph TC N 3
Moppert, Edward Joseph, Jr. TC C 5
Morgan, James Patterson EC C 4
Morgan, Norman K. TC C 5
Morgan, Raymond James EC N 4
Morrill, John Ed:ward TC N 5
Morris, Howard Franklin TC C 2
Morrison, Joe Shepard TC C 0
Morrison, Robert D. TC C 5
Morse, Eldon L. TC C Spec.
Morton, Jasper Wesley TC N 4
Morton, Marion Billy TC C 0
Mote, Henry Kelley TC C 8
Mullen, Harris Hopkins TC N 6
Mullin, James Louis TC N 4
Mullins, Paul Reeves TC C 5
Mulvay, Edward Thomas EC C 4
Munro, Bursell G TC N 6
Murff, James Theo EC N 5
Murphy, Alvin R. EC N 6
Murphy, Gilbert Franklin, Jr. TC N 3
Murphy, James Fred EC N 5
Murphy, William Carl TC C 0
Murrell, Charles Dandridge TC N 5
Muscheck, Charles O. EC N 5
Muse, Wyndell Garnett EC N 4
Musselman, William Barry TC C 2
Myerberg, Alvin Jerome TC C 4
Myers, William C. TC C 1
Myers, Donald TC C 3
Napier, Baxter Wilson EC N 6
Nash, James Frank, Jr. TC C 5
Nawrocki, Casimir Zenon TC C 4
Naylor, William C. TC C 1
Nazor, Gordon Lang TC C 1
Neely, Aaron Buford EC N 5
Neighborgall, Roger TC C Aud.
Neilson, Robert Hunter TC N 1
Nelson, Clark N. TC C 5

Graceville, Fla.
Lake Charles, La.
Ft. Lauderdale, Fla.
Washington, D. C.
Glenside, Pa.
Burlingame, Calif.
Brevard, N. C.
Livingston, N. J.
Conneaut, Ohio
Santa Monica, Calif.
High Point, N. C.
Duluth, Minn.
Pomona, Calif.
Beaufort, S. C.
Jacksonville, Fla.
Washington, D. C.
Quakertown, Pa.
Oxford, N. C.
Ridley Park, Pa.
Sarasoto, Fla.
Oxford, N. C.
Royston, Ga.
Plainfield, N. J.
Charleston, W. Va.
Albemarle, N. C.
Seattle, Wash.
Catonsville, Md.
Greensboro, N. C.
Wilmington, N. C.
Larchmont, N. Y.
Durham, N. C.
Okmulgee, Okla.
Albemarle, N. C.
Atlanta, Ga.
Tampa, Fla.
Morristown, Pa .
Jacksonville, Fla.
Greensboro, N. C.
Miami, Fla.
Calhoun, Miss.
Knoxville, Tenn.
Laurel, Md.
Euclid, Ohio
Salisbury, N. C.
Portsmouth, Va.
Philadelphia, Pa.
Atlanta, Ga.
South Orange, N. J.
Baltimore, Md.
Williamston, N. C.
Albany, N. Y.
Louisville, Ky.
Alderson, W. Va.
Brockerton, Mass.
Washington, D. C.
Ashtabula, Ohio
Cookeville, Tenn.
Huntington, W. Va.
Fair Oaks, Pa.
Boone, Iowa

Nelson, Norman Kent TC C 2
Nelson, Roland Hill TC C 0
Neudecker, Josepil Wheeler EC N 4
Newcomer, Robert Eugene TC N 4
Newell, Ernest T. TC C 4
Newman, Alvin Herman TC C 3
Newman, Ernest Gustave TC N 6
Newsome, Park Smith TC N 0
Nichol, Robert Joseph TC C 3
Nichols, Harold Joe TC N 5
Nichols, John Irvin TC C 3
Nicholson, Bradford L. TC C 5
Niflis, Homer TC N 4
Nixon, Albert Leon TC N 1
Nizich, Frederick M. TC N 1
Noble, Gerald S. TC C 2
Noelle, Calvin Dickson TC N 4
Nolan, Virgil Atticus TC C 0
Noon, Joseph Francis EC N 5
Norris, Franklin Gray TC C 5
Norton, Allyn Sumner TC C 1
Norwood, Charles A. TC C 2
Nye, Robert B. TC C 0
Nygaard, Karl Otto TC N 1
Oakley, LeRoy Peter TC N 1
O'Brien, Donald Quinby TC N 1
Ocken, Paul J. A. TC N 4
O'Connor, James B TC C 3
Odegard, Robert Christ EC N 4
Odom, Edward Nelson TC C4
O'Leary, James Joseph TC C 0
Olive, Billy Brown EC C 2
Olive, Johnson Calvin TC N 1
Olson, Robert Edward TC N 1
Onderdork, Charles Spurgeon TC N 1
O'Neill, David Henry, Jr. EC N 4
Oosterhoudt, Allen C. TC C 3
Oppenheim, Alfred Martin TC C 1
Orange, Linwood E. TC C 4
Ortolf, Karl George TC C 1
Orzech, Edward George TC N 1
Osborne, John Coughlin TC C 1
Osborne, Wallace S. TC C 1
Ostendarp, George William EC N 4
Overton, Ernest Glenn TC C 1
Paar, James Albert TC C 1
Pace, Fred Charles TC C 0
Palladino, Fred TC C 0
Palmer, William Jacob EC C 4
Palumbo, Edward Arthur TC C 1
Pandolfo, Patrick Anthony TC C 0
Park, Douglas Edward TC C 1
Park, Ulna Foster TC C 7
Parker, Graydon Keith TC N 1
Parker, Richard Marsh TC N 1
Parnell, James Thomas TC N 1
Parrish, Robert Henry TC C 1
Pasquinelli, Leo John EC N 6
Patterson, Daniel TC C 1
Pattridge, Willard L. TC C 6

West Palm Beach, Fla
Garrett, Va.
Memphis, Tenn.
West Monroe, La.
Bryson City, N. C.
Dánville, Va.
Pensacola, Fla.
Washington, Ga.
St. Petersburg, Fla.
Albany, Ga.
Rocky Mount, N. C.
New Canaan, Conn.
Bedford, Ind.
Penns Grove, N. J.
Hartford, Conn.
Chicago, Ill.
Chicago, Ill.
Rome, Ga.
Baltimore, Md.
Washington, D. C.
Ruxboro, N. C.
Raleigh, N. C.
Llitz, Fla.
Fleetwood, Pa.
Dublin, Ga.
Maplewood, N. J.
Minneapolis, Minn.
Chauncey, Ga.
Chicago, Ill.
Richmond, Va.
New Brunswick, N. J.
Durham, N. C.
Charlotte, N. C.
Yeadon, Pa.
Ardmore, Pa.
Memphis, Tenn.
Jacksonville, Fla.
Westfield, N. J.
Durham, N. C.
Bridgetown, N. J.
Sihenandoah, Pa .
Glen Bernie, N. J.
Charlotte, N. C.
Baltimore, Md.
Fayetteville, N. C.
Warren, Ohio
Philadelphia, Pa.
Verona, N. J.
Baltimore, Md.
Orange, N. J.
Vineland, N. J.
Durham, N. C.
Columbia, Tenn.
Acushnet, Mass.
Philadelphia, Pa.
Coaldale, Pa.
West Columbia, S. C.
Baltimore, Md.
Greensboro, N. C.
Orlando, Fla.

Paules, William Koger TC N 1
Paulson, Theodure B. TC N 6
Peake, Kobert Sanders TC C 0
Pearce, Willianı Beacham EC N 4
Peckham, Stanley Walter TC N 3
Peeler, Burley Starr, Jr. TC C 1
Peeples, Paul Wiggins TC C 4
Peiffer, Thomas David TC C 0
Pendergrass, Charles Calvin TC C 1
Penick, Edward Crenshaw TC N 6
Pennington, Donald Bond EC N 6
Penske, Herbert W. EC N 4
Perini, Edward Paul EC C 4
Perry, Jesse Parker, Jr. TC C 6
Perry, Thomas TC N 2
Ferwein, Robert Lewis EC C 4
Peters, James Edward TC N 6
Petraitis, Tony Walter EC N 5
Petree, Joe Ray TC C 5
Peyser, Joseph Leonard TC N 3
Pfeffer, Louis Roland EC C 4
Pfefferkorn, Robert G., Jr. TC C 1
Phelps, Eugene Dale TC N 4
Pickard, Marvin A. TC C 2
Pierce, John Everett, Jr. TC C 2
Pitt, Jack Anderson TC N 1
Pittman, Paul Perry TC C 1
Plante, C. Bertram, Jr. TC N 1
Plunkett, Robert Dale TC N 6
Folayes, Irving Marvin TC C 1
Pope, James S., Jr. TC C 1
Pope, Warren H. TC C 4
Fope, Warren Huuse TC C 7
Posner, Marvin Albert TC N 1
Post, Warren George TC C 4
Foston, Nathaniel Avent TC N 5
Potanos, John Nicholas TC C 1
Powers, Richard Lovell TC C 1
Pratt, Edmund Taylor, Jr. EC N 4
Pressley, Lucius Crawford, Jr. TC C 1
Preston, John Edward TC C 0
Price, Alfred B. TC C 4
Price, Aubrey Herman TC C 0
Price, Redman Turner, Jr. TC C 0
Pridgen, Alexander Wade TC C 0
Pries, John Jerome TC N 1
Prieto, Pedro Braga EC C 2
Proctor, James Wardwell, Jr. TC N 4
Proctor, Sidney Leroy, Jr. TC C 0
Progler, Harry Smith EC N 6
Pruitt, John Wesley TC N 0
Ptaschinski, George Howard EC N 4
Puterbaugh, Walter H., Jr. TC C 2
Futman, William Munden TC N 3
Race, Roger Alfred TC N 1
Ragsdale, Lee Morris EC N 6
Rakestraw, Robert Shannon TC C 0
Ramsey, Robert Wayne TC C 1
Ramsay, William T. TC C 0
Randall, John William TC N 5

Yurk, Pa.
Newaggo, Mich.
Arlington, Va.
Greenville, S. C.
San Antonio, Texas
Kings Mountain, N. C.
Estill, S. C.
Hummelstown, Pa .
Cliffside, N. C.
Hopkinsville, Ky.
York, Pa.
Cheverly, Md.
Stewartsville, N. J.
Hertford, N. C.
Shenandoah, Pa.
San Antonio, Texas
Cambridge, Mass.
Chicago, Ill.
Greensboro, N. C.
White Plains, N. Y.
St. Albans, N. Y.
Winston-Salem, N. C.
Ada, Okla.
Durham, N. C.
Daytona Beach, Fla.
Westfield, N. J.
Black Mountain, N. C.
Brooklyn, N. Y.
Fowler, Ind.
New Haven, Conn.
Louisville, Ky.
Bardentown, N. J.
Durham, N. C.
Philadelphia, Pa.
Clarksburg, W. Va.
Florence, S. C.
St. Augustine, Fla.
St. Pauls, N. C.
Elkton, Md.
Chester, S. C.
Wilmington, N. C.
Dublin, Ga.
Durham, N. C.
Williamson, W. Va.
Raleigh, N. C.
Brooklyn, N. Y.
Santiago, Chili, S. A.
Scarsdale, N. Y.
Durham, N. C.
Clarksburg, W. Va.
Charlotte, N. C.
Newark, N. J.
Johnstown, Pa.
Miles, Texas
Guilford, Me.
Knoxville, Tenn.
Greenville, S. C.
Norfolk, Va.
Rocky Mount, N. C.
Buffalo, N. Y.

Kankin, William C. EC N 4
Raper, William Burkette TC C 4
Katcliff, James C. TC C 3
Rawlings, Charles Edward TC C 0
Ray, Jack Leroy TC C 0
Raymond, Harry Paul TC C 4
Reasor, James Dan TC C 0
Reed, James Bennett TC N 4
Reeves, Earle Feiton EC N 4
Regan, Dennis Kevin TC N 1
Register, Joseph Knott TC N 5
Reid, Paul R. EC N 6
Reid, Carl Tillman TC C 0
Reilly, John Joseph TC N 1
Remer, Bertram Robert EC N 6
Revel, John Frederick TC C 0
Reynolds, Hendley Stone, Jr. TC C 1
Reynolds, James Taylor EC C 2
Reynolds, John Ennis TC N 1
Rhame, John Marion, Jr. TC C 0
Rhine, Robert Eldon TC C 1
Rhoades, Verne, Jr. TC C 3
Rice, Samuel Lawrence, Jr. TC N 4
Rich, Robert Ellett TC C 0
Richmond, Lewis Cass, Jr. TC C 1
Ridout, Robert Ciarles TC C 0
Riehl, William Theodore TC N 1
Rierson, Robert Leak TC N 1
Rigioni, Rodrigo Maroto TC C 1
Ritchie, James S. EC N 4
Roach, Henry Herman, Jr. TC N 5
Robbins, Frank Thayer TC C 1
Roberts, Frederick Goddard TC N 1
Roberts, Grady Leon TC N 3
Robertson, Arthur Burdett TC N 1
Robertson, William Wilson TC C 0
Robins, James Atkins TC C 1
Robinson, A. Paul TC C 5
Robinson, Charles A. TC C 0
Robinson, Grover Cleveland EC N 4
Robinson, John Francis TC C 1
Robinson, Warren Holt TC C 1
Robnett, Joe James, Jr. TC C 0
Rodenberg, E. Adolph, Jr. TC C 1
Rodfong, John Ruhl, Jr. TC N 1
Rodgers, James iranklin TC N 2
Roellke, Robert Louis TC C 5
Rogers, David Ball TC N 1
Rogers, Kale Eugene TC N 6
Roland, William Elvin TC N 6
Rones, James Manning TC C 0
Rose, Charles Alexander TC N 0
Rose, Harvey Allan TC N 1
Rosenberg, Jac Alfred TC C 2
Rosenberg, Walter D., Jr. TC N 4
Rosenfeld, Leon V. TC C 2
Ross, Donald Melvin EC N 4
Ross, Walter Lee EC N 6
Rosson, Roland Broaddus TC N 5
Rothey, Donald Calvin EC C 3

Charlotte, N. C.
Middlesex, N. C.
Winston-Salem, N. C.
Jarratt, Va.
Gadsden, Ala.
Hollingswood, N. J.
Big Stone Gap, Va.
Denver, Colo.
Palmetto, Ga.
Jersey City, N. J.
Greenville, N. C.
Pascagoula, Miss.
Greenville, N. C.
Bridgeport, Conn.
Miami Beach, Fla.
Charleston, S. C.
Nashville, Tenn.
Plainfield, N. J.
Vincentown, N. J.
Bishopville, S. C.
Durham, N. C.
Ashéville, N. C.
Metamora, Ohio
Washington, D. C.
Melton, W. Va.
Pelham Manor, N. Y.
Richmond Hill, N. Y.
Charlotte, N. C.
Grecia, Costa Rico
Charlottesville, Va.
Raleigh, N. C.
Durham, N. C.
Princeton, N. J.
Pampa, Texas
Rtitherfordton, N. C.
Pittsburgh, Pa.
Durham, N. C.
Laurel, Del.
Bellaire, Oh:o
Chattanooga, Tenn.
Philadelphia, Pa.
Charlotie, N. C.
Durham, N. C.
Charleston, S. C.
Midland, Pa.
Statesville, N. C.
Maplewood, N. J.
Norristown, Pa.
Centralia, Ill.
Johnson City, Tenn.
High Point, N. C.
Wilmington, N. C.
Altoona, Pa .
Atlanta, Ga.
Norfolk, Va.
Fayetteville, N. C.
Baltimore, Md.
Baltimore, Md.
Washington, D. C.
Elizabeth, N. J.

Rowe, Joshua Tillman EC N 6
Roxlo, William TC C 2
Roy, Frank, Jr. TC C 4
Roys, Roger Earle TC N 1
Rudin, Walter TC C 4
Rudisill, Michael Erastus TC C 0
Rueckert, Arthur Wilfred TC C 1
Rusher, John Lewis, Jr. TC N 6
Russell, Don, Jr. TC C 6
Russell, George TC C 6
Rutherford, Donald Bruce TC N 1
Ryon, William Eugene, III TC N 0
Sacks, Norman Harold TC N 1
Sain, William Wayne TC N 0
Sakas, Joseph EC N +
Salazar-Lizano, Alvaro TC C 1
Sale, Edward Dalton TC C 3
Salisbury, Richard Millious TC N 1
Salmon, Pen Keiter TC N 1
Sammons, Carson H. TC N 6
Samuels, Joseph Barrett, Jr. TC C 0
Sanford, Glen M. TC C 2
Sapp, Earle W., jr. TC N 5
Satlof, Melvin G. TC N 6
Savitt, Allen Jack TC C 1
Sayre, Clifford LeRoy, Jr. TC N 4
Scafuro, Angelo Charles TC C 0
Scahill, Thomas J., Jr. TC N 6
Scarrow, Howard Albert TC C 0
Schaffer, John James, Jr. TC N 1
Scaller, Howard G. TC C 2
Sharf, Benjamin TC N 1
Schenck, David EC N 4
Schick, Philip Martin TC C 1
Schilling, Harry John TC N 2
Schlie, Roland W. EC N 6
Schlieder, John Richard TC C 0
Schluter, Dewey Archie TC N 4
Schmidt, Clifford William TC N 1
Schmidt, Richard Sheldon EC N 4
Schneider, Walter H. EC C 4
Schrauth, George Max TC N 1
Schutz, Edgar K. TC N 5
Schwartz, Richard EC N 6
Scioscia, Louis T. TC C 0
Scott, Clifford Young TC N 1
Scott, Frank Alexander TC C 0
Scott, Harold Eugene TC C 0
Scott, Howard Blake TC C 4
Scott, James Herbert TC N 1
Scott, Robert Lorre TC N 4
Scott, Samuel Harper TC N 0
Scott, Walter Thomas TC N 6
Scupine, William Fred TC C 2
Seabury, John Webster EC N 4
Searcy, Henry M. TC C Spec.
Sears, Kenneth L. TC C Grad.
Seay, James Lee TC C 3
Semmes, Granville Martin TC N 4
Seward, John Evans TC C 5

Baltimore, Md.
Charlotte, N. C.
Watertown, Tenn.
Meriden, Conn.
New York, N. Y.
Gibsonville, N. C.
Dunkirk, N. Y.
Salisbury, N. C.
Hamden, Conn.
Hamden, Conn.
Swarthmore, Pa.
Winston-Salem, N. C.
Flushing, N. Y.
Newton, N. C.
Clairton, Pa .
San Jose, Costa Rico
High Point, N. C.
Juliustown, N. J.
Eddington, Pa .
La Grange, Ga.
Parkersburg, W. Va.
Lake Wales, Fla.
Washington, D. C.
Albany, Ga.
Ansonia, Conn.
Arlington, Va.
Allendale, N. J.
Kansas City, Mo.
Detroit, Mich.
Scranton, Pa.
Sharon, Pa.
Highland Park, N. J.
Greensboro, N. C.
Cos Cob, Conn.
Philadelphia, Pa.
Elgin, Ill.
Lowville, N. Y.
Omaha, Neb.
Stroudsburg, Pa.
Hinsdale, Ill.
Durham, N. C.
Richmond Hill, N. Y.
Winchester, Va.
Washington, D. C.
Brookline, Pa.
Hatboro, Pa .
Roanoke, Va.
Pittsburgh, Pa.
Greensboro, N. C.
Carney's Point, N. J.
Erie, Pa.
Charlotte, N. C.
Baltimore, Md.
Miami, Fla.
Guilford College, N. C.
Durham, N. C.
Plano, Ill.
Spencer, N. C.
Memphis, Tenn.
Newport News, Va.

Sexton, Carroll Lewis TC N 0
Shaffer, John T. TC C 2
Shambra, John Joseph TC N 4
Shank, Ellsworth B. TC N 1
Shankweiler, Fred L., Jr. TC C 1
Shapiro, Henry Leon EC N 5
Shapiro, Lewis TC C 1
Shapiro, Oscar William TC C 3
Sharkey, Edward Joseph TC C 2
Shaw, Edward Donald TC C 1
Shaw, John Lester TC C 1
Shea, Paul William TC N 0
Shealy, Cecil Elton EC N 5
Sheffel, Donald David TC C 1
Shehee, Ayles Berry EC N 4
Shenkir, William Henry TC N 3
Shepard, Frank Eugene TC N 0
Shepherd, Roy Corne!ious, Jr. TC C 1
Sherrill, Glenn David TC N 6
Shevick, Jerry Joseph, Jr. TC C 0
Singleton, Gerald Coburn TC C 6
Shockey, Paul Kenneth EC N 4
Shoemaker, Franklin Reynolds TC N 4
Shore, Clarence Albert TC C 1
Short, Frederick William TC C 0
Shropshire, William Gambill TC C 1
Shuford, William Albert TC C 1
Shuler, Tom C., Jr. EC C 4
Shumway, Keith Charles TC N 4
Sicard, Athhur Joseph TC N 1
Sikora, Dnnald Stephen TC N 1
Siman, Ely Earl, Jr. TC N 5
Simmons, Charles Bruce TC N 5
Simon, Pliilip TC N 5
Simon, R $n$ bert Raymond TC N 1
Simpson, John H. TC N 4
Simpson, Ralph Glenn EC N 4
Singer, Joel David TC N 5
Sinichko, George EC N 6
Skarstrom, John H. TC C 9
Skinner, William Wallace EC N 5
Sliger, Kenneth Leon TC N 2
Sloan, Randle Carroll TC C 0
Smallback, William Chester TC C 0
Smith, Baxter Orton TC C 0
Smith, Charles William TC C 0
Smith, Cody Heber TC C 7
Smith, DeWitt Talmadge TC C 3
Smith, Donald Walker TC N 1
Smith, Donald William TC C 0
Smith, George Bryan TC C 3
Smith, Glemn Bryan, Jr. TC C 1
Smith, Gordon L., Jr. EC N 4
Smith, Harry Haywood TC C 2
Smith, Henry Hervey TC C 5
Smith, James Alexander, III TC C 3
Smith, Jesse Graham TC C 1
Smith, John M. TC C 1
Smith, John Newton, Jr. TC C 1
Smith, Joseph Colbert TC C 0

Hendersonville, N. C.
Baltimore, Md.
New Orleans, La.
Manheim, Pa.
Allentown, Pa.
Brooklyn, N. Y.
Great Neck, N. Y.
Newark, N. J.
Arcadia, Fla.
Guatemala, C. A.
Pemberton, N. J.
Greensboro, N. C.
Columbia, S. C.
Savannah, Ga.
Chattanooga, Tenn.
Rogers, Texas
Maryville, Tenn.
Lexington, N. C.
Rutherfordton, N. C.
Towson, Md.
Wilson, N. C.
Smithburg, Md.
Knoxville, Tenn.
Charlotte, N. C.
High Point, N. C.
Thomasville, Ga.
Thomasville, N. C.
New Philadelphia, Ohio
Oklahoma City, Okla.
Turners Falls, Miss.
Wallington, N. J.
Springfield, Mo.
Springdale, N. C.
New York, N. Y.
Westbury, Conn.
Elgin, Okla.
Winston-Salem, N. C.
Brooklyn, N. Y.
Raritan, N. J.
Brooklyn, N. Y.
West Hartford, Conn.
McDonald, Tenn.
Williamson, W. Va.
Oakfield, N. Y.
Bethesda, Md.
Fayetteville, N. C.
Durham, N. C.
Durham, N. C.
Middlebury, Vt.
Bessemer City, N. C.
Greenville, S. C.
Miami Beach, Fla.
Chattanooga, Tenn.
Norfolk, Va.
Raleigh, N. C.
Detroit, Mich.
High Point, N. C.
Winston-Salem, N. C.
Wilmington, N. C.
Charlotte, N. C.

Smith, Joseph Leonard TC C 4
Smith, Norwood Graham TC C 3
Smith, Robert Charles TC N 1
Smith, Robert McLanahan TC C 0
Smith, Robert N. TC C 2
Smith, Roger L. TC C 4
Smith, William Addison TC N 4
Smith, William Dennis TC N 1
Smith, William James TC C 1
Smith, Yandell Roberts TC C 1
Smolen, Harry A. EC N 6
Snell, Thomas Mason TC C 0
Sodowsky, Richard Allen TC N 4
Sorrentino, Angelo Michael TC C 1
Soto, Douglas EC C 6
Spears, Charles Roy TC N 4
Spears, Marshall Turner, Jr. TC N 4
Speas, Herbert Lee, Jr. EC C 3
Spence, Zeno Baker TC C 0
Spencer, Edward H. TC C 6
Spitz, John Victor TC C 1
Sprague, Robert Norman TC C 1
Sredanovich, Samuel Vidak TC N 3
Stalets, Verlyn Billy TC N 4
Stamm, James Charles TC N 5
Standish, L. Miles TC N 6
Stanfield, Henry Lawrence TC N 6
Stanford, Stephen Dunlap TC C 0
Stanley, Larimer Vaughan TC C 1
Stanley, Richard Clark TC N 1
Stapp, Maurice Quinton, Jr. EC N 5
Stark, Robert Lee TC C 0
Starks, Garvin Tremaine TC C 0
Starks, Norman Ralph TC C 0
Starnes, Dale Sylvanus TC C 0
Stars, William Kenneth TC C 0
Stathakis, Gregory John TC C 1
Stauffer, Jay Richard TC N 4
Steadman, Robert Harry TC N 1
Steele, James Gladstone TC C 0
Steele, James Robert TC N 4
Stein, Martin Edward TC N 1
Steiner, Kenneth James EC C 2
Stephens, Samuel Statham TC N 4
Stephens, Winston Bryant, Jr. EC N 5
Stephenson, Harold Patty EC C 5
Stevlingson, Weldon Fletcher TC N 0
Stewart, Jack Attwell TC C 1
Stickel, Delford LeFew TC C 0
Stingl, Alfred Leroy EC N 4
Stinston, John TC C 2
Stockstrom, Louis, III TC C 7
Stockton, Manley Stillwell TC C 0
Stokes, Walter Sidney TC N 1
Stork, Carl Alexander TC N 1
Strasser, Richard Ira TC C 1
Straughn, Isaac Wade, Jr. TC C 1
Strickland, Robert Hector TC C 0
Stringer, Harold Gene TC N 6
Stroupe, James Leland TC C 1

Charlotte, N. C.
Wilmington, N. C.
Stratford, Conn.
Hagerstown, Md.
Cullman, Ala.
Doylestown, Ohio
Atlanta, Ga.
New York, N. Y.
Augusta, Ga.
Louisville, Ky.
Whitting, Ind.
Wilmington, N. C.
Blackwell, Okla.
Sanatorium, N. C.
San Jose, Costa Rica
McAlester, Okla.
Durham, N. C.
High Point, N. C.
Goldsboro, N. C.
Jackson, Tenn.
Atlanta, Ga .
Fanwood, N. J.
Fabens, Texas
Pana, Ill.
Grosse Pointe, Mich.
St. Petersburg, Fla.
St. Petersburg, Fla.
Durham, N. C.
Galax, Va.
Lungmeadow, Miss.
Andice, Texas
Clarksburg, W. Va.
Owensboro, Ky.
Owensboro, Ky.
Granite Falls, N. C.
Jacksonville, Fla.
Chester, S. C.
Lancaster, Pa.
Swampscott, Mass.
Chillicothe, Ohio
Lancaster, S. C.
Jacksonville, Fla.
Jeannette, Pa.
Gladys, Va.
Bcthesda, Md.
Reidsville, N. C.
Fayetteville, N. C.
Jacksonville, Fla.
Martinsburg, W. V.
Belleville, Ill.
New York, N. Y.
Clayton, Mo.
Atlanta, Ga.
Moorestown, N. J.
Philadelphia, Pa .
New York, N. Y.
Waltertown, N. C.
Carolina Beach, N. C.
Louisville, Ky.
Charlotte, N. C.

Styers, Robert Lee TC C 0
Suddard, Oliver V. TC C 4
Sugarman, Alan Cecil TC C 1
Sugg, Joseph Leo TC C 4
Suggs, Alton Lee, Jr. TC N 0
Sughrue, John Joseph, Jr. TC N 1
Sullenberger, John William TC N 6
Summers, James Arey TC C 1
Summers, Joseph Vincent TC N 1
Sunderland, Glenin Wilce EC N 6
Susi, Wayne E. TC N 1
Sutton, Albert J. TC C 1
Sutton, Harry W. EC N 4
Sutton, Howard Mitchell TC N 4
Swain, David Lowrey TC N 2
Swalchick, George TC C 1
Sweeney, Thomas Brothers TC N 1
Talley, Harry Leslie TC N 4
Tallman, Alfred Bryant, Jr. TC C 4
Taylor, Charles Lewis EC N 5
Taylor, David K. TC C 4
Taylor, Edd Wren TC C 0
Taylor, Geoffrey James EC N 5
Taylor, Kenneth, Jr. TC C 1
Taylor, Lawrence H. TC C 0
Taylor, Morris Ray TC C 1
Taylor, Neil Christopher TC C 1
Taylor, Olen Eugene TC C 1
Taylor, Robert Charles TC C 1
Taylor, William H. TC C 2
Thacker, Frank Arrington TC C 0
Thayer, Harry E. T. TC N 1
Theurkauf, Otto Robert TC N 1
Thomas, Albert Donald EC C 1
Thomas, Albert Patrick TC C 1
Thomas, Lawrence William TC N 1
Thomas, Paul Bert EC N 5
Thomas, Pendleton Jones, Jr. TC C 1
Thomas, Robert Leo TC N 4
Thompson, Donald R. TC N 6
Thompson, Jack Y. TC C 1
Thompson, James Lee TC N 4
Thompson, Leonard H. EC N 4
Thompson, Malcolm Edward TC N 1
Thrash, Louis Dale, Jr. TC C 0
Thrift, James Arthur, Jr. TC N 4
Thrower, Troy H. TC C 5
Tipton, Jeremy Cole TC C Auditor
Toledo, Josi Eugenio TC C 1
Tomlinson, Russell Crawford TC C 0
Tracy, Marvin G. EC N 6
Trainer, John Carlton, Jr. TC N 1
Trawick, Irving Fredrick TC C 2
Trenkmann, Edward, Jr. TC N 1
Treschel, Frank Rinard TC C 0
Tripp, Paul Russell TC N 1
Trippett, Frank Gordon TC N 4
Trumbull, Roy J. EC N 6
Trusk, George TC N 0
Tucker, Adam Reynold, Jr. TC C 8

Winston-Salem, N. C.
Newark, Del.
Asbury Park, N. J.
Durham, N. C.
Durham, N. C.
Forest Hills, N. Y.
Tallahassee, Fla.
Salisbury, N. C.
Ardmore, Pa .
Newton, Ill.
Pittsfield, Me.
Brownville, Pa.
Baltimore, Md.
Roanoke, Va.
Asheville, N. C.
Calver, Pa.
Westport, Conn.
Kansas City, Mo.
Hamburg, N. C.
Charleston, W. Va.
Oxford, N. C.
Winter Park, Fla.
Manheim, Pa.
Magnolia, N. C.
Roanoke Rapids, N. C.
Durham, N. C.
Terrace, Fla.
Durham, N. C.
Alexandria, La.
Unaka, N. C.
Greensboro, N. C.
Newton Square, Pa.
Montclair, N. J.
Branson, S. C.
Columbia, S. C.
Waterman, Pa .
Bellomare, N. Y.
Savannah, Ga.
Point Pleasant, W. Va.
Kingsport, Tenn.
Durham, N. C.
Heflin, Ala.
Trenton, N. J.
New York, N. Y.
Asheville, N. C.
Warrenton, Ga.
Ridgeville, N. C.
Danville, Ky.
Guatemala, Guat.
Bloomfield, N. J.
Danville, Ohio
Collingswood, N. J.
Durham, N. C.
Larchmont, N. Y.
Birmingham, Ala.
Jersey City, N. J.
Aberdeen, Miss.
Milwaukee, Wis.
Chicago, Ill.
Raleigh, N. C.

Tumlinson, William Blackwell TC N 4
Turbiner, Milton TC C 5
Turnbull, Walter Ford TC N 1
Turner, Dent Hall TC C 1
Turner, Harlan Raymond, Jr. TC C 1
Turner, Philip Ray TC C 0
Turowski, Walter Richard TC N 1
Turpin, David H. TC C 0
Tyndall, Rommie Winfred TC C 0
Underhill, David Albert TC N 1
Underhill, John Arthur TC N 1
Underwood, Jack Dean EC C 2
Unger, Franklin Koons, Jr. TC N 1
Upchurch, John Lee, Jr. TC C 0
Urlaub, Natthew William EC C 2
Valentine, Charles Carleton TC N 4
Valledor, Jose M. EC C 3
Valley, Morton T. TC C 3
Vallotton, Bill W. TC C 3
Vandercook, John Paul TC N 4
Vasquez, Hector TC C 0
Vaughan, Earl Jackson TC C 1
Vaughan, John Willis EC N 4
Veals, Ralph Langdon TC N 4
Vining, Ralph Edward EC N 4
Virgin, Don G. TC N 4
Vitan, William, Jr. TC N 4
Vogel, John Leslie TC C 4
Votti, Carl E. TC C 1
Wacker, Kenneth Henry TC C 1
Wagener, Nelson K. EC N 4
Wagner, Fred Reese TC C 1
Walker, Carl Englebert TC C 0
Walker, Frederick L. TC C 5
Walker, William Freeman TC C 1
Wall, Junius French EC N 4
Wall, William F. TC N 3
Wallace, Taylor Harrison TC N 5
Wallis, James R. EC C 8
Wambach, Richard Findelias TC N 5
Ward, Charles Theodore EC N 4
Ward, Robert Lee TC C 1
Ward, Robert Paul TC C 1
Warner, Joseph Ernest, Jr. TC C 0
Warren, George B. TC C 0
Warren, Julian Marion TC N 2
Warta, Clarence Emmett TC C 0
Watkins, W. T., Jr. TC C 5
Watson, Arthur Charles, Jr. TC C 4
Watson, H. Langill TC C 4
Watts, John Simmerman, Jr. TC C 0
Watts, William Logan TC C 1
Weathers, William Harley TC C 0
Webber, Stephen George TC N 1
Webster, Thomas R. TC C 1
Weil, Kenneth Louis TC C 4
Weinberg, Carroll Arnold TC C 1
Weinberg, John D. EC N 4
Weirauch, Roland EC N 6
Weise, Herman Ernest John TC N 3

West Point, Miss.
New York, N. Y.
Williamsport, Pa .
Albemarle, N. C.
Atlanta, Ga.
Cincinnati, Ohio
Providence, R. I.
Bedford, Va.
Durham, N. C.
Summit, N. J.
Edgewood, R. I.
Durham, N. C.
Willow Grove, Pa.
Durham, N. C.
Bellerose, N. Y
Brooklyn, N. Y.
Hato Rey, Porto Rico
Cahoes, N. Y.
Valdosta, Ga.
Alexander, Ark.
New York, N. Y.
Orlando, Fla.
Hampton, Va.
Carney Point, N. J.
Baltimore, Md.
Ashland, Ky.
New York, N. Y.
Louisville, Ky.
Philadelphia, Pa.
Chatham, N. J.
Lithonia, Ga .
Haddonfield, N. J.
Savannah, Ga.
Washington, D. C.
Hazelhurst, Ga.
Chattanooga, Tenn.
Mt. Airy, N. C.
Crystal Springs, Miss.
Lovejoy, Ga.
Georgetown, Minn.
Chattanooga, Tenn.
Tenafly, N. J.
Detroit, Mich.
Winston-Salem, N. C.
Orlando, Fla.
Spring Hope, N. C.
Lindenhurst, N. Y.
Johnson City, Tenn.
Houston, Texas
New Bern, N. C.
Ivanhoe, Va.
Louisville, Ky.
Goldshoro, N. C.
Port Washington, N. Y.
Durham, N. C.
New York, N. Y.
Blackstone, Va.
Mt. Vernon, N. Y.
Liberty Center, Ohio
Thorndale, Texas

Weissberger, Edwin George TC C 1
Welch, George H., Jr. TC C 1
Welch, James Edward TC C 1
Welt, Donald George TC N 1
West, Edwin Scott TC N 5
West, Robert Holt TC C 3
West, Sidney TC C 3
Wester, Thaddeus B. TC N 6
Whalan, Warren Melbourne, Jr. TC N 1
Whalen, Walter Fintan TC C 1
Wheeler, Arthur E. EC N 5
Wheeless, Daniel Lewis TC C 0
Wheeler, Joseph O. TC C 3
White, Beaman Twitty EC C 4
White, Edward Allen TC N 1
White, Raymond Herbert, Jr. TC C 0
White, Richard Marion EC N 6
White, Weyman Erasmus TC C 2
Whitehurst, Patrick Dean TC N 1
Whitesell, John Patrick TC C 1
Whitfield, Don S. TC C 1
Whitfield, Thomas Japheth, III TC C 4
Whiting, Richard A. TC N 4
Whitley, Joseph McCullough EC N 6
Whitsitt, Lynn Edward EC N 4
Whitten, Ward Bower TC N 1
Wight, Fred Cary TC N 4
Wilbur, Robert L. TC C 6
Wilder, Jesse Holland EC C 4
Wilhoite, Gene Milton EC N 6
Wilkerson, Ralph Rollins TC C 0
Willett, Charles Fink TC N 4
Williams, Fred D., Jr. TC C 4
Williams, Kenneth Trotter TC C 2
Williams, Lloyd L. TC C 3
Williams, Thomas William, III TC C 1
Willis, Gerald Graham TC C 0
Willson, William Wentworth TC C 3
Wilson, Alexander C. R. EC N 5
Wilson, Gordon Bruce TC N 1
Wilson, Nathan Hughs TC C 0
Wilson, Robert Hayes TC N 4
Wilson, Walter Grier TC C 0
Winberg, William, III TC N 3
Winitsky, Leon EC N 6
Winkler, Hybert Erwin TC C 1
Winzer, Richard Sellers TC N 1
Wisniewski, Adam Steuan TC N 1
Wolf, Robert Lawrence TC C 1
Wolff, Charles Gaulbert TC C 1
Wolff, George M. EC C 7
Wolff, Robert S. TC C 5
Wong, Wendell Gordon TC C 1
Wood, Byron Allen TC N 5
Woodbury, Philip Stephen TC C 0
Woodley, William Thomas TC C 1
Woolley, Philip M. EC N 6
Wooten, John H. TC N 6
Worley, Douglas John TC C 0
Wuchte, Richard Ernest EC N 4

New York, N. Y.
Anderson, S. C.
Suffolk, Va.
Suffield, Conn.
Windom, Texas
Charlotte, N. C.
Washington, D. C.
Henderson, N. C.
Norwood, R. I.
Philadelphia, Pa.
Philadelphia, Pa.
Rocky Mount, N. C.
Toronto, Ontario, Canada
Raleigh, N. C.
Howard Beach, N. Y.
White Plains, N. Y.
Norfolk, Va.
Savannah, Ga.
Flushing, N. Y.
Phoenix, Ariz.
Hillsboro, N. C.
Suffolk, Va.
Wynnewood, Pa.
Oakmont, Pa.
Decatur, Ill.
Mineola, N. Y.
Sanford, Fla.
Durham, N. C.
Delight, Ark.
Chattanooga, Tenn.
Winston-Salem, N. C.
Perry, Okla.
Jackson Heights, N. Y.
Charlotte, N. C.
Jacksonville, Fla.
Pensacola, Fla.
Morehead City, N. C.
Darien, Conn.
Baltimore, Md.
Pittsburgh, Pa.
Cliarlotte, N. C.
Los Angeles, Calif.
Charlotte, N. C.
Waltham, Mass.
Camden, N. J.
Lenoir, N. C.
Kutztown, Pa.
Broad Brook, Conn.
Brooklyn, N. Y.
Louisville, Ky.
Haynesville, La.
Rhodesdale, Md.
Maranol, B. W. I.
Hissop, Ala.
Pearisburg, Va.
Elizabeth City, N. C.
Southern Pines, N. C.
Laurel Miss.
Raleigh, N. C.
Lebanon, Pa.

Wyman, M. Richard TC C 1
Yarborough, Frank Graham TC C Audit. Young, James John TC N 1
Young, Loren Darlington TC C 1
Younger, Kenneth Glenn, Jr. TC C 0
Yount, Paul Wesley, Jr. TC C 7
Ziegler, Sidney TC C 1
Zitzelberger, James Allen TC N 5

Baltimore, Md.
Cary, N. C.
N. Wildwood, N. J.

Huntington, W. Va. Tampa, Fla.
Charlotte, N. C.
Brooklyn, N. Y.
Milwaukee, Wis.

July 4, 1945-October 25, 1945
TC indicates Trinity College and EC College of Engineering. Letters denote classification: C, Civilian; N, Navy. Number shows semesters completed as of July, 1945.

Adams, Hunter DeWees, Jr. EC N 3
Adler, Sheldon Bert TC C 1
Aiken, Franklin Dunwoody, III TC N 3
Alexander, James Robert TC C 1
Allen, Bonva Closson, Jr. TC N 6
Allison, Luther Lee, Jr. TC C 5
Allred, William Floyd TC C 3
Alpert, Eugene Oliver TC C 6
Alt, Thomas Henry TC N 3
Amonette, Joseph Irwin TC C 0
Anderson, Callis Jensen TC N 3
Anderson, Charles Duane TC N 4
Anderson, Henry McLean, Jr. TC C 0
Anderson, Jack Forester TC N 5
Anderson, Robert Aeiker TC C 0
Anderson, William Woodrow TC N 4
Appen, Raymond Carl TC C 0
Arnold, Allen Richard EC N 7
Ashby, William Clay TC C 2
Atkins, Robert Myrick TC N 7
Atwood, John Warren TC N 3
Aumen, William Charles TC C 1
Austin, James Howard TC C 0
Austin, Tollie Edward, Jr. TC C 3
Axe, George Calvin TC N 3
Bachman, Willard John EC N 4
Bagwell, Wallace Bruce TC N 5
Baily, Alfred Ewing TC N 7
Baker, Barry TC C 2
Baker, Don Clair TC C 0
Baker, Keith Legette TC C 0
Baker, Sumner Erwin TC N 4
Baldwin, Kenneth Rone TC C 0
Bane, Allan TC C 2
Barbee, Charles Wesley, Jr. TC C 2
Barker, Julian TC C 0
Barker, Richard Elliott TC C 0
Barkin, Bernard Lewis TC C 0
Barnard, John Lockhart, Jr. TC N 3
Barnett, Ewing Smith TC C 0
Barrett, John Albert TC C 3
Bartel, Frank Octave TC C 0
Bates, Alvin Kay TC N 5
Battle, William Clement TC C 7
Beam, Jay Ky EC N 5
Bechtold, George William EC N 4

Drexel Hill, Pa. Brooklyn, N. Y.
Griffin, Ga.
New Orleans, La.
Raleigh, N. C.
Warrenton, Va.
Ruckingham, N. C.
Brooklyn, N. Y.
Washington, D. C.
Albany, Ga.
Hartsville, S. C.
Lakeland, Fla.
Rhodhiss, N. C.
Wilkesboro, N. C.
Winfield, W. Va.
Ettrick, Va.
Oak Ridge, Tenn.
Baltimore, Md.
Mt. Airy, N. C.
Panagould, Ark.
Winsted, Conn.
Braintree, Mass.
Pittsburgh, Pa .
Portsmouth, Va.
Aspinwall, Pa.
Bristol, Pa.
Toccoa, Ga.
Carmichaels, Pa.
Racky Mount, N. C.
Altoona, Pa .
Hemingway, S. C.
Tampa, Fla.
Whiteville, N. C.
Austell, Ga.
Durham, N. C.
Wilson, N. C.
Rockaway, N. Y.
New York, N. Y.
St. Louis, Mo.
Albany, Ga.
Norfolk, Va.
Spartanburg, S. C.
Nampa, Idaho
State Park, S. C.
Beaufort, N. C.
Pittsburgh, Pa.

Beck, William Härvey TC C 0
Eecker, Harold Leo EC N 4
Becker, William Frederick EC N 7
Bennett, John Pinkston TC N 4
Bennett, Reginald Victor TC N 3
Bennett, Rodney Doane TC C 0
Berkowitz, Ami Emanuel TC N 6
Berlin, Melvin TC C 0
Berry, Don Kay TC N 4
Beyer, Henry Joseph TC N 4
Biancavilla, Dominick EC N 4
Bianchi, Richard Eugene TC C 0
Bingaman, John William TC C 0
Bingler, Robert Byron TC C 0
Birmingham, Walter Marvin TC N 4
Bisbe, Richard Emil EC N 5
Bishopric, Welsford Farrell TC C 0
Bizzell, Henry Arthur, Jr. TC C 0
Blackard, Embree Hoss TC C 0
Blackman, Thomas TC N 4
Elackmon, Benjaınin Boinest TC C 4
Blackmon, Stephen Elisha TC N 5
Blake, William Campbell, Jr. TC N 3
Blandenship, Charles Guy TC N 5
Blanton, Stewart Bennett EC N 7
Blome, William Arnold TC C 0
Bobbitt, Joseph Irvin TC C 0
Bobo, Forest Freeman TC N 4
Boeckel, John Hart EC N 3
Boger, Clarence Earl TC N 4
Boggs, John Campbell, Jr. TC C 0
Boggs, Lawrence Kennedy TC N 7
Bogley, Claude William TC N 3
Bomar, Thomas Carlton TC N 4
Bonn, Marvin Charles EC N 5
Booth, Claude Carr EC N 4
Booth, Joseph Kenneth TC N 5
Bortner, John Gerberick TC C 3
Bowers, Gilmore EC C 2
Bowie, Fred Alex EC C 4
Boyle, John Robert TC C 1
Boze, Ralph Eugene TC N 4
Bozich, Anthony Michael TC N 4
Bracey, Earl Watkins TC N 5
Brackenwagen, Stanley Gene TC N 4
Brackin, Bowman Duncan TC C 5
Bradley, Emmiett Hughes TC C 0
Bradley, Richard Sidney TC C 0
Brand, Joseph Margon TC N 3
Brandt, Chester TC C 4
Branham, William Dennis TC C 0
Branscomb, Lewis McAdory TC N 7
Brennan, William Knodel TC N 3
Erewer, James Lambe TC C 0
Brice, George Wilson TC C 0
Bright, John Kenneth TC C 0
Brinkley, John Dallas TC C 0
Brooks, Keith TC N 6
Brooks, Richard Iddings, Jr. TC N 5
Brown, Bachman Storch, Jr. TC N 4

Wadesboro, N. C
Bethlehem, Pa .
Nutley, N. J.
Lufkin, Texas
Louisville, Ky.
Saratoga Springs, N. Y.
Philadelphia, Pa.
Savannah, Ga.
Overland, Mo.
Portland, Ore.
New York, N. Y.
Guatemala City
Reading, Pa.
Pittsburgh, Pa.
Granite City, Ill.
Brooklyn, N. Y.
Spray, N. C.
Newton Grove, N. C.
Charlotte, N. C.
Klamath Falls, Ore.
Orangeburg, S. C.
Washington, Ga.
Tampa, Fla.
Florence, S. C.
Charlotte, N. C.
Lincoln Park, N. J.
Wilmington, N. C.
Winston-Salem, N. C.
Rockville, Md.
Akron, Ohio
Front Royal, Va.
Birmingham, Ala.
Friendship Heights, Md.
Georgetown, S. C.
Freeport, Ill.
Philadelphia, Pa.
Columbus, Ga.
Yorke, Pa.
Winston-Salem, N. C.
Morganton, N. C.
New York, N. Y.
Lynchburg, Va.
Chicago, Ill.
La Crosse, Va.
Brookings, S. C.
Beaufort, S. C.
Hampton, Va.
Williamson, W. Va.
Louisville, Ky.
Brooklyn, N. Y.
Rocky Mount, N. C.
Durham, N. C.
Louisville, Ky.
Siler City, N. C.
Charlotte, N. C.
Westport, Conn.
Valdese, N. C.
New Castle, Pa.
Peterboro, N. H.
Lincolnton, N. C.

Brown, Chandler Wilcox EC N 4
Brown, Clarence J., Jr. TC N 3
Brown, Curtis Woody, Jr. TC C 0
Brown, Kenmore Mcllanes TC N 4
Brown, Miller French EC C 4
Bruce, Richard Patten TC C 0
Bruck, Thomas Joseph EC N 4
Brunner, George Joseph TC N 3
Bryant, William Patrick EC N 3
Bryson, Arnold Stephan TC C 0
Buchanan, Edward Dean EC N 4
Buck, Lewis Alexander TC N 4
Budd, James Archibald TC N 7
Bugg, Charles Paulett TC C 3
Bullard, John Carson EC N 3
Burdick, Wallace Thurston TC C 0
Burgoyne, Caleb Reese TC C 0
Burris, Alonzo Anderson, Jr. TC C 0
Butler, Paul Frederick TC C 1
Butler, Robert Eugene TC C 0
Butscher, Thomas Bennett TC C 0
Byrd, Reginald Eugene TC C 0
Cahow, James Norman EC N 4
Cairns, Frank Elmer, Jr. TC N 5
Campbell, Craig Carol TC C 3
Campbell, Lachlan Leigh TC C 4
Cannon, Frank Grene, Jr. TC C 0 。
Cannon, Michael Leo TC N 5
Cappel, Jack Thompson TC C 0
Carpenter, Thomas Earl TC N 4
Carr, Thomas Laurence TC C 0
Carrera, Carl Henry TC C 3
Carrier, Uel Lavon EC N 6
Carson, Raymond Pressly TC C 5
Carson, Raymond Reese EC N 3
Carter, Hal Dunson EC N 3
Carter, Luther Jordan TC C 0
Cathcart, Edward Reaver TC C 0
Chadwick, Harry Roberts, Jr. TC C 0
Chait, Donald Carl TC C 1
Chambers, James Alsa TC C 3
Chance, Horace Monroe, Jr. TC N 4
Chappell, Thomas Tye TC N 3
Chase, Fred Lamar TC N 4
Chears, William Crockett TC N 3
Cheek, James Buchanan TC C 0
Chetlin, Norman Daniel EC N 4
Chidester, Robert Paul TC C 0
Chillingworth, Mehiteus Gould TC C 0
Chipley, Roy Marshall, Jr. EC N 3
Choate, Joseph Leighton TC C 0
Christner, Howard Hayes TC C 0
Clapp, Daniel Eiliott EC N 4
Clark, George Philemon TC N 7
Clark, Walter Sherman TC C 4
Classen, Robert Edward TC N 4
Clifford, Robert Keaney EC N 4
Coe, Lowry Nadal, Jr. TC N 3
Coggeshali, Berryman Edwards TC C 0
Cole, John Gordon TC C 0

Short Creek, W. Va.
Washington, D. C.
Hillsboro, N. C.
Washington, D. C.
Beaumont, Texas
Atlanta, Ga.
Brooklyn, N. Y.
New lork, N. Y.
Springfield, Tenn.
Chicago, Ill.
Lorain, Ohio
Norfolk, Va.
Greenwood, Fla.
Raleigh, N. C.
DeFuniak Springs, Fla.
Englewood, N. J.
Pensacola, Fla.
Savannah, Ga.
Jacksonville, Fla.
Suffolk, Va.
Parkersburg, W. Va.
Portsmouth, Va.
Omaha, Neb.
Mazomanie, Wis.
Durham, N. C.
Charleston, W. Va.
Cliffside, N. C.
Gladstone, Mich.
Alexandria, La.
Goodlettsville, Tenn.
Chester, Pa.
Tampa, Fla.
Bluff City, Tenn.
Belmont, N. C.
Little Falls, N. J.
Coral Gables, Fla.
Charlotte, N. C.
Anderson, S. C.
Durham, N. C.
Atlanta, Ga.
Homerville, Ga.
Key West, Fla.
Plainfield, N. J.
Hollywood, Fla.
Charlotte, N. C.
Durham, N. C.
E. Pittsburgh, Pa.

Ashtabula, Ohio
Honolulu, T. H.
Raleigh, N. C.
Charlotte, N. C.
Somerset, Pa.
Upper Darby, Pa.
Wilson, N. C.
Miami, Fla.
St. Paul, Minn.
Baltimore, Md.
Chevy Chase, Md.
Darlington, S. C.
Blackstone, Va.

Cole, Leo Lincecum, Jr. EC N 3
Coles, Jewell Rudolph EC N 3
Coleman, John James TC C 2
Collins, Ira Taylor TC C 0
Collum, Telpha Conley TC N 4
Condon, Vernon William EC N 4
Connolly, Willian Dwight TC N 5
Cooke, John Henry EC N 5
Cooley, Horace Franklin TC N 5
Coon, Allan Gregory TC C 0
Cooper, Frederick Stephen TC C 0
Cooper, James Henry TC N 5
Copenhaver, Edward Holmes TC C 0
Coppin, Charles Clifford, III EC N 3
Corrado, Victor Menna EC N 5
Corrigan, James Henry, Jr. EC N 4
Cosby, Jack Terrell TC N 4
Cox, William Jones TC C 6
Craniotis, George E. EC C 2
Credle, Edward Cecil EC N 5
Cressman, Robert Allen EC N 4 Cross, Ray Yancey TC C 3
Crowder, John Nathaniel TC N 6
Cudworth, James Rowland EC N 5
Cuevas, Donald James EC N 4
Currie, William Dixon TC C 0
Curry, John Edward EC N 5
Curry, John Robert, Jr. TC C 0
Czerwinski, Stephen Ramsay TC N 3
Dabbs, Thomas McBride TC C 1
Daniel, Joseph March TC C 0
Davenport, Guy Nattison TC C 1
David, Noble Jonathan TC C 0
Davidson, George Robert EC N 3
Davis, Bruce Griffin TC N 4
Davis, Crowley A. TC N 5
Davis, James Britt TC N 4
Davis, Ramon Leonidas TC C 0
DeCurtis, Robert Anthony TC C 0
DeHoff, Harold Lee EC N 3
De la Guardia, Jaime TC C 5
Dellavedova, John TC C 0
Dellenbarger, Lynn Edwin, Jr. TC C 1
DeMott, Robert Bert EC N 4
DeNoon, David John TC C 0
Denton, William Henry EC N 4
DeRogatis, Albert John TC C 1
DeVane, Howard Tillman TC N 4
Dewberry, William Crittenden TC C 0
Diamond, Gus TC C 0
Dillard, William Elbert, Jr. TC N 4
Dilorenzo, Thomas Mario TC N 4
Ditchik, Jesse TC C 0
Doggett, Lewis Cárpenter TC C 0
Donahue, Edward James TC C 0
Doran, Francis Aloysius TC N 3
Dorsett, Hugh Jackson TC N 5
Dorsey, John Patrick TC N 3
Dorsey, John Phillip EC N 5
Dorsey, William Rothwell TC N 4

Memphis, Tenn.
Allensville, Ky.
Birmingham, Ala.
Kingsport, Tenn.
Golden, Miss.
Charleston, S. C.
Racine, Wis.
Middletown, Conn.
Raleigh, Tenn.
Pinnacle, N. C.
Philadelphia, Pa .
Sanford, Fla.
Newport News, Va.
Lexington, Ky.
Ozone Park, N. Y.
Baltimore, Md.
Lynchburg, Va.
Elizabeth City, N. C.
Puerto Cortes, Honduras
Durham, N. C.
Columbus, Ohio
Aibany, Ga.
High Point, N. C.
Tuscaloosa, Ala.
Gulfport, Miss.
Red Springs, N. C.
Philadelphia, Pa.
High Point, N. C.
New Haven, Conn.
Mayesville, S. C.
Parkton, N. C.
Anderson, S. C.
Jacksonville, Fla.
Baltimore, Md.
Tallahassee, Fla.
Memphis, Tenn.
Birmingham, Ala.
Pikeville, N. C.
Providence, R. I.
Baltimore, Md.
Panama City
New Village, N. J.
Shaker Heights, Ohio
East Chester, N. Y.
Coral Gables, Fla.
Morganton, N. C.
Newark, N. J.
Elba, Ala.
Pensacola, Fla.
Burgettstown, Pa.
Columbus, Ga.
Boston, Mass.
New York, N. Y.
Greenwood, S. C.
Waterbury, Conn.
Avoca, Pa.
Branford, Fla.
Columbus, Ohio
Minneapolis, Minn.
Pittsburgh, Pa.

Dowe, Carl Barnard TC N 4
Drabent, Eugene Alphonse TC N 5
Drake, David Ewing TC N 3
Dunaiski, Raymond Martin EC N 5
Duncan, Lewis William TC C 1
Dunn, Earl Thomas TC C 0
Earnest, Alfred Eurke TC C 0
Eaton, William Mellon TC N 6
Edmonds, George Herbert TC N 4
Edwards, Arthur Anderson EC N 3
Edwards, John Wiley EC N 3
Edwards, William Bacon TC C 6
Einhorn, Elliot J. TC C Spec.
Elder, Albert Leo, Jr. EC N 3
Eliff, John Joseph TC N 3
Elkins, John Davis TC N 5
Ellis, John, Jr. EC N 4
Ellis, John Granbery, Jr. EC N 3
Ellis, Walter Frank TC N 4
Ellison, Warren Frederick TC N 4
Elmore, Oscar Monroe TC C 0
Elrod, William Alexander EC C 2
Epstein, Gordon Van TC N 3
Evans, Harold David, Jr. TC C 0
Evans, Paul Franklin, Jr. TC C 0
Fairey, Robert Lewis TC C 0
Fairy, William Arthur TC C 7
Fanjoy, Weldon Sutherland TC C 0
Farren, William Joseph TC N 5
Faulkner, Doc George, Jr. EC N 3
Feder, Richard Yale TC C 0
Fennell, Howard Earl TC N 3
Ferdinand, Thomas Francis EC N 3
Fetherman, William Harold TC N 3
Fine, Ephraim Allan TC C 2
Fink, Chester Walter TC C 3
Fishe, Gerald Raymond Aylmer TC C 0
Fisher, Robert Joseph TC C 0
Fitzpatrick, Julius Way TC N 5
Fleisher, Martin EC N 7
Fleming, James Carlton TC C 0
Flowe, Benjamin Hugh TC N 6
Forbes, Kenneth Keith TC N 6
Ford, Alfred Gust TC N 4
Ford, Harold Edwin TC C 1
Foshee, Charles Newell TC C 4
Foster, Jack TC C 0
Fox, Edgar Charles, Jr. TC C 0
Fox, John Lynn TC N 3
Foy, Thomas Franklin EC N 3
France, Roy Holroyd EC N 6
Francis, Everett Warren TC N 4
Frase, Ronald Glenn TC N 5
Frate, Domenico Carlo EC N 5
Fratscher, Robert Charles TC N 3
Freeman, John Collins TC C 0
Freedman, William EC C 7
Freeze, Jack Edward TC C 1
Friauf, Robert James TC N 3
Friedli, Ernest Karl EC N 4

Norfolk, Va.
Scranton, Pa .
Knoxville, Tenn.
Duluth, Minn.
Morganton, N. C.
Durham, N. C.
Bethesda, Md.
New York, N. Y.
Knoxville, Tenn.
Brooklyn, N. Y.
Whitesburg, Ky.
Mt. Vernon, N. Y.
Durham, N. C.
Bel Alton, Md.
Bridgeport, Pa.
Salt Lake City, Utah
Pass Christian, Miss.
Richmond, Va.
Madisonville, Tenn.
Hinton, W. Va.
Lincolnton, N. C.
Chadbourn, N. C.
Union, N. J.
Elloree, S. C.
Lexington, N. C.
Durham, N. C.
Burlington, N. C.
Statesville, N. C.
New York, N. Y.
Nashville, Tenn.
Closter, N. J.
Pittsburgh, Pa.
Newark, N. J.
Stroudsburg, Pa .
Baltimore, Md.
Durham, N. C.
London, England
Athens, Tenn.
Cape May, N. J.
Brooklyn, N. Y.
Martinsville, Va.
Concord, N. C.
Armington, 111.
Jamestown, N. Y.
Richmond, Ind.
Rocky Mount, N. C.
Mountain Lakes, N. J.
Great Neck, N. Y.
Emlenton, Pa.
Richmond, Va.
Spartanburg, S. C.
Wilmington, Del.
Hamburg, N. Y.
Baltimore, Md.
Easton, Pa.
Evanston, Ill.
Durham, N. C.
Charlotte, N. C.
Arlington, Va .
Brooklyn, N. Y.

Firiend, Fred Erwin TC N 3
Frisch, Joseph EC C 5
Frischmann, Charles Peter TC C 0
Frye, Robert Dan TC C 0
Fuchs, Francis Joseph EC C 2
Fugale, Frank William TC N 3
Funk, Muncy, Jr. TC C 0
Gabellini, John Joseph TC N 3
Galloway, Ray Mayer TC N 5
Garcia, Keynaldo Salvador TC C 0
Garcia de Queuedo, Guillermo TC C 2
Gardner, Robert Randolph TC N 3
Garside, Joseph, Jr. TC N 3
Garthe, Henry Carl TC N 3
Geier, John Joseph EC N 5
Gere, Homer George TC N 3
Gerke, John Royal TC N 4
Geyer, George Kobert TC C 0
Gibson, Norman Gilbert TC C 0
Gilbert, Olin Englar, Jr. EC N 3
Gillette, John Burton TC C 0
Gilpin, Roy Edwin, Jr. TC N 5
Glasco, Ray Hill TC C 0
Glos, Richard Corbin TC C 6
Glover, Horace Sluman EC N 4
Gobbel, John Temple, Jr. TC C 0
Gochnauer, Richard Bleakley EC N 3
Goeke, William Henry TC N 4
Goley, Willard Coe TC C 0
Goodfellow, Murray Fickes TC C 0
Goodman, Fred Watson TC C 0
Goodson, Phillip Lorenzo, Jr. TC C 2
Gray, Irving Smith EC C 2
Grayson, David Dillard TC C 0
Greenman, Harlan Ray EC N 4
Greenwald, Robert Clark, Jr. EC N 7
Gresham, Rex Maynard TC N 6
Griffin, Eugene Wilson, Jr. EC N 3
Griffin, Russell Edward TC N 4
Griffith, James Leo TC N 4
Griffith, Norman Early, Jr. EC N 4
Groff, Allan William TC C 1
Grubb, John Gilbert EC N 7
Gruber, Sol EC N 5
Gunner, Charles Anthony TC C 0
Gurley, Elbert Luther EC N 3
Gurley, Joseph Grafton EC N 3
Hakan, Morton Juseph EC N 5
Hall, Frank Dawson TC C 0
Hall, James Curtis TC N 4
Hall, Rudolph Hamilton TC N 4
Halliday, William Neil TC N 2
Hamer, Isham Biadwell TC C 0
Hamilton, Neill Quinn EC N 4
Hammett, Gordon Charles, Jr. EC N 3
Hampton, George Forrest EC N 3
Hampton, William Edgar EC C 2
Haney, John Norman EC N 3
Hankins, William Edward. Jr. TC C 0
Hanni, Herman Squier TC N 4

Laurenceburg, Tenn.
Durham, N. C.
New York, N. Y.
Gastonia, N. C.
Greenfield, Mass.
Salem, Mass.
Woodstown, N. J.
Allentown, Pa.
Wilmington, N. C.
Utuado, P. R.
Santurce, P. R.
Columbia, Tenn.
Fairmont, W. Va.
Baltimore, Md.
Rochester, N. Y.
Kingsley, Pa.
Charlotte, N. C.
Middletown, Pa.
Waycross, Ga.
Baltimore, Md.
Wilson, N. C.
Carson, Iowa
Charlotte, N. C.
Tampa, Fla.
Starrucca, Pa.
Chapel Hill, N. C.
Baltimore, Md.
Datroit, Mich.
Graham, N. C.
Hanover, Pa.
Kannapolis, N. C.
Greenville, N. C.
Freeport, N. Y.
Dallas, Texas
Battle Creek, Mich.
Norfolk, Va.
Oklahoma City, Okla.
Hamlet, N. C.
Battle Creek, Mich.
Hambleton, W. Va.
Charlotte, N. C.
Lancaster, Pa.
Norfolk, Va.
New York, N. Y.
Teaneck, N. J.
Lenoir, N. C.
Richmond, Va.
Joplin, Mo.
Coral Gables, Fla.
Galax, Va.
Dahlgreen, Va.
Columbus, Ohio
Tatum, S. C.
Pittsburgh, Pa.
San Francisco, Calif.
Signal Mountain, Tenn.
Durham, N. C.
Grandview, W. Va.
Cirristiansburg, Va.
Painesville, Ohio

Haralson, Prescott Herndon TC C 4
Harden, Milton Ray, Jr. EC N 3
Hardigree, Sidney Curtis TC N 4
Hardman, Wallace Jackson EC N 3
Hargett, Derward Mitchell EC N 7
Harmon, Max Carr TC C 0
Harrington, Thomas Sidney TC N 3
Harris, Elisha Carter TC C 0
Harris, Thomas Burrell TC C 0
Harris, Willard Eranch TC C 0
Harriss, Clyde Hampton TC C 0
Hart, James Everette TC C 0
Hastings, Richard Owen EC N 4
Haun, Warren Scott EC N 3
Havens, Robert Schiller TC N 3
Hawkins, James Wendell TC C 0
Hayden, Daniel Lee TC C 3
Hayes, Leonidas Braxton, Jr. TC N 3
Hays, Paul TC N 4
Heald, James Hamilton TC N 3
Heffner, James Jeffries TC N 4
Henry, Norman Albert TC N 3
Henry, William Theron EC N 3
Herbst, Robert Taylor TC N 6
Hersman, George Jacob EC N 5
Hewett, Ertle Bellamy EC N 3
Higginbotham, William Edward TC N 5
Hill, Charles Edward EC N 3
Hill, James Gilland EC C 3
Hillman, Edgar LaFayette TC C 0
Hines, Gulmer Augustus, Jr. TC C 0
Hinson, William Talmadge TC C 3
Hipps, Herbert Greene TC C 0
Hodges, Charles Roland TC C 0
Hodkins, Lewis TC C 0
Hodkins, Norris Lowell TC N 4
Hodson, Thomas Sherwood TC N 3
Hofmeister, George Carl EC N 4
Hogg, Harold Hubert TC C 0
Hoke, George Clayton EC N 4
Hoke, John Humphreys TC N 4
Holbrooks, Harold Douglas TC C 0
Holder, Clarence Perry EC N 5
Holland, Ray Wa!ter EC N 4
Holmes, Brandon McConnell EC N 4
Holroyd, William Casper TC C 3
Holt, Bevley Dan EC N 3
Holton, Holland Young TC C 6
Holzwarth, Richard Jacob TC C 1
Honeycutt, Robert Lee TC N 4
Honkanen, Kauko Allan TC N 5
Hooks, Johnny Max TC C 0
Horn, William Carl TC N 5
Horowitz, Nathan TC C 1
Houtman, John Francis TC C 0
Houtz, Jesse Frank TC C 2
Howe, William Bell White TC C 0
Howell, Alfred Gordon TC N 5
Huckabee, Robert Calloway TC C 0
Hudson, Ralph Fletcher TC N 6

Tulsa, Okla.
Durham, N. C.
Athens, Ga.
Glenville, W. Va.
Charlotte, N. C.
Kannapolis, N. C.
Henderson, N. C.
Durham, N. C.
Charlotte, N. C.
Warrenton, N. C.
Salisbury, N. C.
Waycross, Ga.
Chattanooga, Tenn.
Memphis, Tenn.
Jordan, N. Y.
Kingsport, Tenn.
Huntington, W. Va.
Greensboro, N. C.
Harlan, Ky.
River Forest, Ill.
Richmond, Va.
Williamsport, Pa .
Arlington, Va.
Charleston, S. C.
Grand Rapids, Mich
Wilmington, N. C.
Shreveport, La.
Ridley Park, Pa.
Bronxville, N. Y.
Rocky Mount, N. C.
Rutherfordton, N. C.
Marshville, N. C.
Spruce Pine, N. C.
Ft. Lauderdale, Fla.
Southern Pines, N. C.
Southern Pines, N. C.
Hendersonville, N. C.
Pittsburgh, Pa.
Pittsburgh, Pa .
Claremont, N. C.
Rossford, Ohio
Kannapolis, N. C.
Blakely, Ga.
Afton, Tenn.
Statesville, N. C.
Greenwood, S. C.
Milan, Tenn.
Durham, N. C.
Cincinnati, Ohio
Charlotte, N. C.
Embarrass, Minn.
Cliarlotte, N. C.
Elmhurst, IIl.
Wilmington, N. C.
Clayton, Del.
Fayetteville, N. C.
Hendersonville, N. C.
Howison, Miss.
Durham, N. C.
Mt. Morris, Ill.

Huffman, John Wesley TC C 7
Hughes, Lawrence Josiah TC N 4
Hull, Ezekiel Hoover TC C 3
Hunt, Francis Milton TC C 0
Hunt, Raymond James TC N 5
Hunter, William Cecil EC N 3
Hutchinson, Ronald Lee EC C 5
Hutto, Clinton Brunson TC N 2
Hutton, William Caldwell EC N 3
Imhoff, John Leonard EC N 7
Inman, Walter Griffry TC N 2
Irlbacher, John Michael TC C 1
Irwin, George Leigh TC C 0
Jackson, Harold Mackenzie, II TC C 0
Jackson, John Jerrold TC C 0
Jahnke, William Robert EC N 4
Jennings, Caleb Brown TC N 4
Jennings, William Beatty, Jr. TC C 0
Jerome, Henry London EC N 5
Jeske, Richard John EC N 3
Jilcott, Clarence Poe EC N 6
Johnson, Charles Thomas TC C 2
Johnson, Eugene Blair EC C 2
Johnson, John Nasbitt TC N 3
Johnson, William Benjamin TC N 4
Jones, George Pcole TC C 0
Jones, Howard Bird TC C 1
Josey, John Speir TC C 4
Judge, Richard Bernard EC N 4
Kagarise, Ronald Eugene TC N 3
Karl, Lawrence Oswald TC C 0
Kasparian, Robert TC N 4
Kea, Kirk Ira, Jr. EC N 4
Kellogg, Robert Graham TC C 0
Kelly, John Vincent EC N 5
Kennedy, James Monterey TC N 5
Kent, Richard Thursby TC N 3
Kidd, Charles Wyndham TC N 4
Kimbrell, Odell Culp, Jr. TC C 3
Kimpflen, Joseph Francis EC N 4
Kimsey, Charles Dexter TC N 4
King, Joseph Calvin EC N 6
Kingery, Lisle Byron TC C Spec.
Kingery, Robert Elliott TC C 0
Kirk, Robert Louis TC C 5
Kirkpatrick, Ronald Eugene EC N 3
Klein, Morton EC N 5
Kleist, Roy Franklin TC N 4
Kline, William Rexroad TC N 3
Kloss, Lester Kenneth TC N 4
Knight, Roland McKittrick TC C 0
Knotts, Ernest Mack TC N 7
Koenig, Elmer August EC N 5
Koestline, Charles Norman TC C 0
Koffenberger, Edward LeRoy EC N 4
Kowalski, Ludwig Robert EC N 3
Krisza, John TC N 5
Krout, William Alfred TC C 0
Kuhlman, Ormand Frederick EC N 5
Kuhnhein, Robert Edwin TC N 4

Huntington, W. Va.
Quincy, Ill.
Reidsville, N. C.
Danville, Ky.
Chicago, Ill.
Phoenix, Ariz.
Duncan, W. Va.
Perry, S. C.
Collierville, Tenn.
Baltimore, Md.
Paris, Tenn.
Mamaroneck, N. Y.
Chester, S. C.
Charlotte, N. C.
Larchmont, N. Y.
Pittsburgh, Pa.
Spartanburg, S. C.
Fayetteville, N. C.
Pittsboro, N. C.
Westfield, N. C.
Kelford, N. C.
Red Springs, N. C.
Brooklyn, N. Y.
Clay, Ky.
Narrows, Va.
High Point, N. C.
Clearwater, Fla.
Bartow, Ga.
Wilmington, Del.
Roaring Spring, Pa.
Ford City, Pa.
Youngstown, Ohio
Richmond, Va.
Asheville, N. C.
Jackson Heights, N. Y.
Salisbury, N. C.
Carbondale, Pa .
Winthrop, Mass.
Durham, N. C.
Philadelphia, Pa.
Macon. Ga.
Leaksville, N. C.
White Plains, N. Y.
White Plains, N. Y.
Elkins Pk., Philadelphia, Pa.
Covington, Ky.
New York, N. Y.
Waterbury, Conn.
Washington, D. C.
Sharon, Pa.
Belton, S. C.
Albemarle, N. C.
Libertyville, III.
Thomasville, N. C.
Wilmington, Del.
Belleville, N. J.
McKees Rocks, Pa.
Covington, Ky.
Elmore, Ohio
Fort Thomas, Ky.

Kulow, Frederick Charles TC N 5
Kurz, Herbert George TC N 4
Laakso, Leslie Raymond TC N 5
Lamb, Warren Stacy TC N 5
LaMotte, Louis Cessite, Jr. TC C 2
Land, Morton Lewis TC C 3
Landon, Horace Gordon TC C 0
Lange, Carl James TC N 6
Lankford, Wilbur Chapman TC C 5
Lanning, Richard Lester TC C 0
Larkin, Israel Shirk EC N 4
LaRue, Jim Elmer TC N 6
Latimer, Starr Orion EC N 4
Lau, John Leslie TC C 0
Lawandales, Andrew Frank TC C 0
Lawless, Joseph 'Thomas, III EC N 3
Lear, Robert Evans TC N 4
Leary, Robert E. TC N 3
Lee, James Harold TC C 3
Leinung, John Gustave TC N 4
Leisy, Melvern Krehbiel TC C 2
Leitner, Paul Revere TC C 0
Lemmon, John Parke, Jr. TC N 3
Lent, Robert Eugene EC N 5
Letters, Howard Wesley, Jr. TC N 3
Levin, Burton Ernest TC C 0
Levin, David Harold TC C 0
Lieving, Robert Edgar EC N 4
Lilly, Edward Charles TC N 4
Link, Harvey Jay TC C Spec.
Linker, Edward Markham EC N 3
Llewellyn, Linus William EC N 3
Lockhart, David Kelly EC C 6
Long, Frederick LeRoy TC N 4
Longley, Clarence Mobley TC N 4
Loughran, Joseph Louis TC N 3
Love, Nash Monroe EC N 5
Lowe, Donald Scott TC N 5
Lowe, Elwyn Hardin TC C 0
Lucas, Stephen John TC N 6
Lundstrom, George Henry TC N 4
Lutterloh, Samuel Ayer TC C 0
Luttrell, John Lore EC N 3
Lynch, George Cunningim TC N 3
Lyon, William Harrison TC C 2
McCarrick, Addison Taylor EC N 4
McCarthy, Robert Charles TC N 4
McClamroch. William Porter TC C 3
McCloskey, William Francis TC N 4
McConnell, Forrest, Jr. TC C 0
McCully, Alvin Charles TC C 0
McCutcheon, Gordon Douglas TC C 2
McDonald, Neil Jarvis TC C 0
McDonald, Raymond Oswald. Jr. TC N 5
McDonald, William Maddox TC N 6
McGowan, Keith Dunham EC N 6
McIver, Robert Norton TC N 4
McKee, William David EC N 6
McKeowen, Beverly Hicks TC N 4
McKinley, Charles Alexander TC N 5

Milwaukee, Wis.
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William Island, Neb.
Maxton, N. C.
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Memphis, Tenn.
Siloam, Ga.

McKinnon, Cyril John TC C Spec. McLarty, Colin Slator EC N 4 McLean, William Campbell TC C 0 McLeod, Henry Laurence TC C 0 McLeod, Thomas Bragg TC C 0 McMurray, Samuel Franklin EC N 5
McNeely, Irwin Hollar TC C 0
Madlon, Eugene August EC N 3
Magee, William Edwin TC C 1
Magennis, John Joseph TC N 4
Maginnis, James Barrett TC N 5
Magruder, Roy TC C 0
Maguire, Robert Albert TC C 4
Mahoney, Charles Joseph TC N 3
Mairs, Daniel Atlee TC N 3
Major, Howard LeRoy TC C 0
Malloy, Justin Warren EC N 3
Manning, Walter Harold, Jr. TC N 7
Mappus, Theodore Tobias TC N 4 Marchal, Lawrence Nolan TC N 4 Markey, John Joseph EC C 7
Markowitz, Herbert Benny TC C 0
Marshall, Ted Hall TC C 0
Martin, Francis Benedict, Jr. EC N 3
Martin, Richard Charles TC C 0
Maruschak, Peter EC N 5
Marx, James Henry TC N 4
Massi, Arthur Carmen, Jr. TC N 3
Masters, Richard Warren EC N 5
Mathers, Robert Wesley TC C 1
Matheson, Julius Daniel, Jr. TC N 5
Mathis, William Lowrey EC N 3
Mathisen, Glenn Estes TC N 4
Matthews, Thomas Hill TC C 0
Matzen, Robert Thomas TC N 4
Mavromates, Stanley Peter TC C 0
Meade, Richard Alburn TC N 4
Meadows, Richard Lynn TC N 3
Meara, Robert Francis TC C 0
Mebane, David Philip TC C 0
Melero, Andres T. TC C 4
Menna, Joseph EC N 5
Mercer, John Theron TC N 6
Messer, Henry Davis TC C 3
Metcalf, Boyd Hendren TC C 0
Middlesworth, Chester Paul TC C 0
Millar, William Imber TC C 0
Millenson, Donald Harvey EC N 4
Miller, James Herbert, Jr. TC C 3
Miller, Jesse Edwards TC N 4
Miller, Norman Maurice TC N 3
Miller, Richard Hershey EC N 3
Milone, Robert Louis EC N 3
Mirabito, Thomas William EC N 3
Mitchell, John William EC N 4
Moeves, Charles John TC N 3
Molesko, John TC C 0
Moore, Donald Reese TC C 0
Moore, Elliott Lafayette TC C 1
Moore, Paul DeCosta TC C 0

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Tryon, N. C.
Puerta de Tierra, P. R.
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Sarasota, Fla.
Oxford, N. C.

Morgan, James LeRoy TC N 6
Morgan, Norman Kenneth TC C 4
Morgan, Raymond James EC N 3
Morrill, John Edivard TC N 4
Morris, Howard Franklin TC C 1
Mote, Henry Kelley TC C 7
Mullen, Harris Hopkins TC N 5
Mullen, Joseph Alroy TC N 3
Mulvey, Edward Thomas EC C 3
Munro, Bursell Galaida TC N 5
Murff, James Theo EC N 4
Murphy, Alvin Rush EC N 5
Murphy, James Fred EC N 4
Murray, Edmund TC N 4
Murrell, Charles Dandridge TC N 4
Muscheck, Charles Otto EC N 4
Musselman, William Barry TC C 1
Myerberg, Alvin Jerome TC C 3
Myers, James Paxton TC N 4
Myers, William C. TC C 0
Napier, Baxter Wilson, Jr. EC N 5
Nash, James Frank, Jr. TC C 4
Naylor, William Chastain TC C 0
Nazor, Gordon Lang TC C 0
Neal, Cecil Guy TC N 4
Neely, Aaron Buford EC N 4
Neudecker, Josepis Wheeler, Jr. EC N 3
Newell, Ernest Tittle TC C 3
Newman, Ernest Gustave TC N 5
Newsome, George Hassel! TC N 4
Newton, Ernest Cliborne TC N 6
Newton, Robert Lee TC N 7
Nichol, Robert Joseph TC C 2
Nichols, Harold Joe TC N 4
Nickerson, Marcus Franklin, III TC N 6
Noon, Joseph Francis EC N 4
Norton, Allyn Sumner TC C 0
Oakes, Burton Divid TC N 4
Olive, Johnson Calvin TC C 0
O'May, Robert Russell TC N 4
O'Neill, David Henry, Jr. EC N 3
Ortolf, Karl George TC C 0
Osborne, John Coughlin TC C 0
Ostendarp. George William EC N 3
Overton, Ernest Glenn TC C 0
Paar, James Albert TC C 0
Page, Robert Linoel TC N 6
Palumbo, Edward Arthur TC C 0
Park, Douglas Edward TC C 0
Park, Ulna Fosier TC N 6
Parr, Ross Clayton TC N 6
Pasquinelli, Leo John EC N 7
Patrick, William Franklin TC N 6
Patterson, Daniel Watkins TC C 0
Paulson, Theodore Bill TC N 5
Paytash, Joseph, Jr. TC N 6
Pearce, William Beacham EC N 3
Pearlson, Raymond EC N 4
Peeples, Paul Wiggins TC C 3
Pelletier, Jere Walter TC N 2

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Lafferty, Ohio
Greenville, S. C
Arverne, N. Y.
Estill, S. C.
Maysville, N. C.

Pendergrass, Charles Calvin TC C 0
Penick, Edward Crenshaw TC N 5
Pennington, Donald Bond EC N 5
Penske, Herbert Willis EC N 3
Perini, Edward Paul EC C 3
Perwein, Robert Lewis EC C 3
Peters, James Edward TC N 5
Petraitis, Tony Walter EC N 4
Petree, Joseph Ray TC C 4
Pfeffer, Louis Roland EC C 3
Pfefferkorn, Robert Gillimer, Jr. TC C 0
Piccone, Domenic TC N 6
Pierce, Walter Morgan TC C 1
Pierce, William Howard TC C 0
Pittman, Paul Perry TC C 0
Plunkett, Robert Dale TC N 5
Polayes, Irving Marvin TC C 0
Pope, Warren House TC C 6
Posavec, John Joseph TC C 2
Poston, Nathaniel Avent TC N 4
Potanos, John Nicholas TC C 0
Powers, Richard Lovell TC C 0
Pratt, Edmund Taylor, Jr. EC N 3
Pressley, Lucius Crawford TC C 0
Price, Alfred Barney TC C 5
Proctor, James Wardwell, Jr. TC N 3
Progler, Harry Smith EC N 5
Ptaschinski, George Howard EC N 3
Ragsdale, Lee Morris EC N 5
Rains, James Breer EC N 4
Ramsey, Robert Wayne TC C 0
Randall, John William TC N 4
Rankin, William Charles EC N 3
Ranon, Severin Donald EC C 7
Raper, William Burkette TC C 3
Raymond, Harry Paul TC C 3
Register, Joseph Knott TC N 4
Reid, Paul Richard EC N 5
Remer, Bertram Kobert EC N 5
Rhine, Robert Eldon TC C 0
Rhoades, Verne, Jr. TC C 2
Richmond, Lewis Cass, Jr. TC C 0
Rigioni, Maroto Kodrigo TC C 0
Riley, Edward Joseph TC N 4
Ritchie, James Sutton EC N 3
Ritchie, Joel Franklin TC N 4
Roach, Henry Herman, Jr. TC N 4
Roba, Albert Edward TC N 3
Roberts, Levi James TC N 7
Robertson, Arthur Burdett TC C 1
Robins, James Atkins TC C 0
Robinson, Arthur Paul TC C 4
Robinson, Grover Cleveland, Jr. EC N 3
Robinson, John Herbert TC N 3
Robinson, John Francis TC C 0
Robinson, Warren Holt TC C 0
Robley, James Laverne TC N 4
Rodenbert, Ernest Adolph, Jr. TC C 0
Rodgers, Gilbert EC C 3
Roellke, Robert Louis TC C 4

Cliffside, N. C.
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Chicago, 111.
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Charleston, S. C.
Padue, W. Va.
Maplewood, N. J.

Rogers, Dalton Wallace TC N 5
Rogers, Kale Eugene TC N 5
Roiz, Albert TC N 4
Roland, William Elvin TC N 5
Rosenberg, Jac Alfred TC C 1
Rosenberg, Walter Daniel, Jr. EC N 3
Ross, Donald Melvin EC N 3
Ross, Walter Lee EC N 5
Rosson, Roland Broaddus, Jr. TC N 4
Rothey, Donald Calvin EC C 2
Rowe, Herbert Graham TC C 0
Rowe, Joshua Tillman EC N 5
Rueckert, Arthur Wilfred TC C 0
Rusher, John Lewis, Jr. TC N 5
Ryberg, Ralph TC N 6
Ryon, Alden Billings TC N 5
Sakas, Joseph EC N 3
Salazar-Lizano, Alvaro TC C 0
Sammons, Carson Hughes TC N 5
Sapp, Earle Walter, Jr. TCN 4
Satlof, Melvin Gordon TC N 5
Savitt, Allen Jack TC C 0
Sayre, Clifford Leroy, Jr. EC N 3
Scahill, Thomas Jefferson, Jr. TC N 5
Scales, Forrest Green TC N 4
Scanlon, William John EC N 7
Scarborough, David Knowles TC C 0
Schenck, David EC N 3
Schlie, Roland Wendal EC N 5
Schmidt, Henry George, Jr. TC C 0
Schutz, Edgar Kemneth TC N 4
Schwartz, Richard Daniel EC N 5
Scott, Howard Blake TC C 2
Scott, Robert Lorne TC N 3
Scott, Walter, Jr. TC N 7
Scott, Walter Thomas TC N 5
Scupine, William Frederick TC C 1
Seabury, John Webster EC N 3
Seay, James Samuel TC N 4
Semmes, Granville Martin TC N 3
Shaffer, John Taylor TC C 2
Shankweiler, Fred Lewis TC C 0
Shapiro, Henry Lean EC N 4
Shapiro, Lewis TC C 0
Sharpe, Edward Robbin TC C 2
Shaw, Edward Donald TC C 0
Shaw, John Lester TC C 0
Shealy, Cecil Elton EC N 4
Sheffel, Donald David TC C 0
Shehee, Ayles Berry, Jr. EC N 3
Shepherd, Roy Cornelious, Jr. TC C 0
Sherrill, Glenn David TC N 5
Shockey, Paul Kenneth EC N 3
Shoemaker, Franklin Reynolds TC N 3
Shomaker, Frank Ashley EC N 7
Shore, Clarence Albert TC C 0
Shropshire. William Gambill TC C 0
Shuford, William Albert TC 0
Silverbach, Lee Elmer EC C 8
Siman, Ely Earl, Jr. TC N 4

Cashiers, N. C.
Centralia, Ill.
San Benito, Texas
Johnson City, Temn.
Allanta, Ga.
Norfolk, Va.
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Washington, D. C.
Elizabeth, Pa.
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Dunkirk, N. Y.
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Elgin, 111.
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Great Neck, N. Y.
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Savannah, Ga.
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Charlotte, N. C.
Thomasville, Ga.
Thomasville, N. C.
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Springfield, Mo.

Simmons, Charles Bruce TC N 4
Simon, Philip TC N 4
Simpson, Ralph Glenn, Jr. EC N 3
Singer, Joel David TC N 4
Sinichko, George EC N 5
Skarstrom, John Halstein TC C 8
Skinner, William Wallace EC N 4
Smith, Burdette Rex TC N 3
Smith, George Bıyan, Jr. TC C 2
Smith, Glenn Bryan TC C 0
Smith, Gordon Láidlaw, Jr. EC N 3
Smith, Harry Haywood TC C 1
Smith, James Campbell TC N 4
Smith, Jesse Graham TC C 0
Smith, John Michael TC C 0
Smith, John Newton, Jr. TC C 0
Smith, Norwood Graham TC C 2
Smith, Robert Samuel TC N 7
Smith, William James TC C 0
Smith, Yandell Roberts TC C 0
Smolen, Harry Anthony EC N 5
Sobleskie, Stanley George TC N 3
Sorrentino, Angelo Michael TC C 0
Soto, Douglas EC C 5
Spann, Willis Lee TC N 6
Spears, Marshall Turner, Jr. TC N 3
Spilman, Thomas William EC N 4
Spitz, John Victor TC C 0
Sprague, Robert Norman TC C 0
Stamm, James Charles ГC N 4
Standish, Livingston Miles TC N 5
Stanfield, Henry Lawrence TC N 5
Stanley, Larimer Vaughan TC C 0
Stapp, Maurice Quinton EC N 4
Starkey, Wayne Hampton EC N 4
Stathakis, Gregory John TC C 0
Stauffer, Jay Richard TC N 3
Steele, James Robert TC N 3
Steiner, Kenneth James TC C 1
Stephens, Samuel Statham TC N 3
Stephens, Winston Bryant, Jr. EC N 4
Stephenson, Harold Patty EC C 4
Stewart, Jack Atwell TC C 0
Stockslager, Edwin Stevens EC N 7
Stockstrom, Louis, III TC C 6
Strasser, Richard TC C 0
Straughan, Isaac Wade, Jr. TC C 0
Strickland, James Nolan TC N 4
Stringer, Harold Gene TC N 5
Stroupe, James Leland TC C 0.
Sugarman, Alan Cecil TC C 0
Sullenberger, John William TC N 5
Summers, James Arey TC C 0
Sunderland, Glenn Wilce EC N 5
Sutton, Albert J. TC C 0
Sutton, Harry Wagner EC N 3
Sutton, Howard Mitchell TC N 3
Swalchick, George TC C 0
Switzer, Elwood Evritt EC N 3
Taylor, Carson Elroy TC N 5

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Wilmington, N. C.
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St. Petersburg, Fla.
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Lancaster, S. C.
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Taylor, Charles Lewis EC N 4
Taylor, David Kerr TC C 3
Taylor, Geoffrey James EC N 4
Taylor, Kenneth TC C 0
Taylor, Morris Ray TC C 0
Taylor, Neil Christopher TC C 0
Taylor, Robert Charles TC C 0
Taylor, William Harvey TC C 1
Templeman, Gordon Frank TC N 5
Thomas, Albert Patrick TC C 0
Thomas, George S. EC C 3
Thomas, Paul Bert EC N 4
Thomas, Pendleton Jones, Jr. TC C 0
Thomas, Robert Leo TC N 3
Thompson, Charles Ray TC N 4
Thompson, Donald Reece TC N 5
Thompson, Jack Younger TC C 0
Thompson, James Gilliam EC N 7
Thompson, Leonard Howard EC N 3
Thompson, William Wallace TC N 4
Thrower, Troy Hyman TC C 4
Tichenor, Charles Beckham TC N 6
Toledo, Jose Eugenio TC C 0
Tomlinson, Carroll Finley EC N 5
Tracy, Marvin Gıant EC N 5
Trawick, Irving Fredrick TC C 1
Traywick, Bill Ray TC C 0
Trumbull, Roy John EC N 5
Turbiner, Milton TC C 6
Turner, Dent Hall TC C 0
Turner, Harlan Raymond, Jr. TC C 0
Urlaub, Matthew William TC C 1
Valledor, Jose Manuel EC C 2
Valley, Morton Thurlow TC C 2
Vallotton, Billy Wise TC C 2
Vance, Lon Dean TC C 0
Vandenend, Hilbert TC N 6
Vaughan, Earl Jackson TC C 0
Vaughan, John Willis EC N 3
Veals, Ralph Langdon TC N 3
Viehmeyer, Georgc Frederick EC N 5
Vining, Ralph Edward, Jr. EC N 3
Virgin, Don Granville TC N 3
Vitan, William, Jr. TC N 3
Vybiral, Victor Creighton TC N 4
Wagner, Fred Reese TC C 0
Walker, Frederick Layman TC C 4
Walker, Gordon Kexal EC N 7
Walker, Robert Earl TC N 4
Walker, William Freeman TC C 0
Wall, Junius French EC N 3
Wallace, Taylor Harrison TC N 4
Wallis, James Rueben, Jr. EC C 7
Walters, Paul Andrew TC C 0
Wambach, Richard Fidelias TC N 4
Ward, Charles Theodore EC N 3
Ward, Robert Lee TC C 0
Ward, Robert Paul TC C 0
Warner, John Robinson TC C 7
Warner, Joseph Ernest, Jr. TC C 0

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Hato Rey, P. R.
Cahoes, N. Y.
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Belews Creek, N. C
Oak Park, Ill.
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Carney Point, N. J.
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Baltimore, Md.
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Winston-Salem, N. C.

Watkins, William Forbes, Jr. EC N 6
Watson, Harvey Langhill TC C 3
Watts, William Logan TC C 0
Wayland, Ernest Tedford TC N 2
Wehner, Kurt Henry TC C 0
Weil, Kenneth Louis TC C 3
Weinberg, Carroll Arnold TC C 0
Weinberg, John David EC N 3
Weirauch, Roland EC N 5
Welch, George Harrison TC C 0
Wells, William Charles, Jr. TC N 6
West, Edwin Scott TC N 4
West, Robert Holt TC C 2
West, Sidney TC C 3
Wester, Thaddeus Bryan TC N 5
Whalen, Walter Flintan TC C 0
Wheeler, Arthur Edwin EC N 4
White, Beaman Twitty EC C 3
White, Richard Marion EC N 5
Whitesell, John Patrick TC C 0
Whitfield, Thomas Japheth, III TC N 3
Whiting, Richard Alden TC N 3
Whitley, Joseph IIcCullough, Jr. EC N 5
Whittington, Hiram Arch TC N 4
Wight, Fred Cary TC N 3
Wilbur, Robert Lynch TC C 5
Wilhoite, Gene Milton EC N 5
Williams, Harold Lee TC C 2
Williams, Kenneth Trotter TC C 1
Williams, Lloyd Lorenzo EC C 2
Williams, Louis Howard TC C 2
Williams, Thomas William TC C 0
Wilson, Alexander Charles EC N 4
Wilson, Joseph Richard Hoyle EC N 7
Wilson, Robert Hayes TC N 3
Winitsky, Leon EC N 5
Winkler, Hubert Erwin TC C 0
Wolf, Robert Lawrence TC C 0
Wolff, Charles Gaulbert TC C 0
Wolff, George Miles EC C 6
Wong, Wendell Gordon TC C 0
Wood, Byron Allen TC N 4
Woodley, William Thomas TC C 0
Woolley, Phillip Monroe TC N 5
Wooten, John Henry, Jr. TC N 5
Wuchte, Richard Ernest EC N 3
IVyman, Maurice Richard TC C 0
Young, Loren Darlington TC C 0
Yount, Paul Wesley, Jr. TC N 6
Zitzelberger, James Allen TC N 4

Farmville, Va.
New Bern, N. C.
Louisville, Ky.
Knoxville, Tenn.
Hoboken, N. J.
New York, N. Y.
Blackstone, Va.
Mt. Vernon, N. Y.
Liberty Center, Ohio
Anderson, S. C.
Delanco, N. J.
Windom, Texas
Charlotte, N. C.
Washington, D. C.
Henderson, N. C.
Philadelphia, Pa.
Philadelphia, Pa.
Raleigh, N. C.
Nurfolk, Va.
Phoenix, Ariz.
Suffolk, Va.
Wynnewood, Pa.
Oakmont, Pa.
Houston, Texas
Sanford, Fla.
Durham, N. C.
Chattanooga, Tenn.
Greenville, N. C.
Charlotte, N. C.
Jacksonville, Fla.
Greenville, N. C.
Pensacola, Fla.
Baltimore, Md.
Atlanta, Ga.
Los Angeles, Calif.
Camden, N. J.
Lenoir, N. C.
Brooklyn, N. Y.
Louisville, Ky.
Haynesville, La.
Maraval, B. W. I.
Hissop, Ala.
Elizabeth City, N. C.
Southern Pines, N. C.
Laurel, Miss.
Lebanon, Pa.
Baltimore, Md.
Huntington, W. Va.
Charlotte, N. C.
Milwaukee, Wis.

# CIVILIAN UNDERGRADUATE MEN ENROLLED IN THE WOMAN'S COLLEGE 

September-May, 1945-1946
Figure indicates number of semesters completed.

Allen, Robert Lee, Jr. 5
Andrews, Richard Selby 8
Applegate, Alfred Jackson 7
Aycock, Thomas Crockett, Jr. 5
Benson, Rupert Lee, Jr. 7
Bobb, William Anders 7
Brackin, Bowman D. 5
Burbank, Daniel N. 7
Cameron, Louis J. 3
Carroll, Kenneth L. 7
Cook, Raymond A. 6
Davidson, William David 6
Dickson, Benjamin Hedgepeth 8
Elliott, Stuart Whitfield 3
Frizzelle, John L. 7
Garey, Robert Lee 2
Gatling, Myrlon Lydon 5
Griffith, Leon Clifford 7
Highsmith, Jack N., Jr. 3
Hillegass, Arthur C. 7
Hood, Charles Edwin 7
Hopkins, James Ira 3
Howerton, Beverly R. 6
Huffman, Paul D. 6
Karmazin, Michael L. 7
Kerr, William John 6
Kilian, Frank Rudolf 5
Laney, Ernest John 2
Leitheiser, William John 7
McDougald, John A. 7
McKinley, Charles A. 6
McMahon, William Wallace 3
Malcolm, John Daniel 6
Mathison, George Haakon 3
Murray, Jerry Dwight 7
Pace, Thomas M. 8
Pansing, Joseph C. 6
Pennington, S. Wayne 7
Pool, Stedman Charles 7
Sherman, Willard B. 8
Simidian, Vahe 4
Smith, Sidney William, Jr. 7
Sydeman, William Jay 3
Thomas, William Raeford 6
Tilley, C. Ray 1 1/2
Vickers, Lawrence Otis 7
Watts, Robert Johnson 7
Wells, John Murrell 4
Williams, Harold Lee 3
Williams, Louis Howard 3
Wright, William Albert, Jr. 7
Zech, Arthur Orr 3

St. Petersburg, Fla.
Durham, N. C.
Clifton, N. J.
Washington, D. C.
Wrightsville Beach, N. C.
Nyack, N. Y.
State College, Miss.
Washington, D. C.
Kinston, N. C.
Easton, Md.
Harlem, Ga.
Los Angeles, Calif.
Raleigh, N. C.
Charlotte, N. C.
Durham, N. C.
Benton Harbor, Mich.
Norfolk, Va.
Holmes, N. Y.
Durham, N. C.
Buenos Aires, Argentina
Greensboro, N. C.
Baltimore, Md.
Durham, N. C.
Thomasville, N. C.
Durham, N. C.
Durham, N. C.
Norlina, N. C.
Beaver, Pa.
Clearwater, Fla.
Durham, N. C.
Siloam, Ga.
St. Petersburg, Fla.
Owosso, Mich.
Queens Village, L. I., N. Y.
Cramerton, N. C.
Pensacola, Fla.
Dayton, Ohio
Mt. Holly, N. C.
Norfolk, Va.
Leander, Texas
Forest Hills, L. I., N. Y.
Atlanta, Ga.
New York, N. Y.
Durham, N. C.
Durham, N. C.
Miami, Fla.
Louisville, Ky.
Hapeville, Ga.
Greenville, N. C.
Greenville, N. C.
Youngstown, Ohio
Miami, Fla.

## THE WOMAN'S COLLEGE freshman class

Aarons, Helen Josephine Abrams, Ida Ulman Adams, Nancy Quinter
Alexander, Nancy Lee
Allen, Eleanor Elizabeth
Allen, Ellen Carol
Ames, Marcia
Armstrong, Barbara Ruth
Armstrong, Mary Ruth
Arnold, Nina Dorris
Atkins, Mary Ann
Bailey, Nell Verstille
Baker, Betty Griscom
Barrett, Alice Elizabeth
Barthen, Adrienne DeWolf
Bassett, Blythe Patricia
Baynes, Julia Belle
Beach, Betty Evelyn
Beal, Helen Vance
Beall, Elizabeth Suzanne
Becker, Frances Elizabeth
Beckett, Ruth Copeland
Betts, Elizabeth Moultrie
Blackham, Barbara Elois
Blackwell, Virginia Dick
Blakeney, deVries Davis
Bleckley, Louise Marie
Bledsoe, Elizabetlı Ann
Bloom, Nancy Jean
Blue, Janet Shirley
Bockmiller, Elizabeth Spencer
Bohn, Sue
Boyden, Alice Margaret
Brenner, Suzanne Rita
Brim, Doris Overton
Brinkman, Mary Elizabeth
Brooks, Dorothy Jane
Brooks, Mary Elizabeth
Brown, Eva Peacock
Brown, Jean Marie
Brown, Patsy Soütherlanc:
Brunson, Clyde Lee
Brunson, June Lee
Burke, Nancy Marie
Burnham, Carol Jean
Caldwell, Jane Nelson
Carmichael, Katherine Willingham
Cato, Anne Hanks
Chamison, Alice Elizabeth
Chapman, Frances Jean
Clark, Ann Borland
Clark, Nancy Eleanor
Clark, Ruth Jane
Clarke, Rosamond Louise
Cleaver, Norah Davis
Clover Nancy Jane
Cockrell, Harryette

New Berı, N. C.
Hopewell, Va.
Durham, N. C.
Passaic, N. J.
Durham, N. C.
Richmond, Va.
E. Grand Rapids, Mich.

Danville, Ky.
Asheville, N. C.
Savannah, Ga.
Paragould, Ark.
Griffin, Ga.
Jacksonville, Fla.
Mobile, Ala.
River Edge, N. J.
Tulsa, Okla.
Hurdle Mills, N. C.
St. Petersburg, Fla.
Durham, N. C.
Birmingham, Ala.
Winnetka, Ill.
Canton, Ohio
Raleigh, N. C.
Uniontown, Pa.
Miami, Fla.
Winston-Salem, N. C.
Evanston, Ill.
Bluefield, W. Va.
Sunbury, Pa.
Raeford, N. C.
Baltimore, Md.
Louisville, Ky.
Durham, N. C.
New Rochelle, N. Y
Greensboro, N. C.
Orlando, Fla.
Dayton, Ohio
Mifnroe, N. Y.
Durham, N. C.
Detroit, Mich.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Burlington, N. C.
Durham, N. C.
Morganton, N. C.
Macon, Ga.
Charlotte, N. C.
Hendersonville, N. C.
Cuyahoga Falls, Ohio
Crosby, Miss.
Durham, N. C.
Durham, N. C.
Cincinnati, Ohio
Merion, Pa.
Tulsa, Okla.
Irvine, Ky.

Cook, Beatrice Louise
Copeland, Marion Evelyn
Cosby, Jayne Hathaway
Coster, Constance Ann
Cove, Enta Harriette
Cox, Mary Dixon
Crane, Marcia Florine
Dale, Sarah Helen
Davis, Marion Lane
Deming, Jeanne Champion
Dennett, Elisabeth Wight
DesJardins, Elizabeth Ann
Dewar, Lillian Daniel
Dibble, Frances Joan
Dodson, Sarah Freeman
Donaldson, Jenny Dye
Duncan, Marion Louise
Duncan, Martha Moore
East, Doris Eleanor
Emmet, Frances Alice
Fahnestock, Janic Sue
Farley, Frances Willoughby
Fidler, Joan Lewis
Field, Anne
Field, Shirley Augusta
Finke, Doris Elaine
Finley, Frances Fay
Flowers, Claire Howard
Forbus, Georg' Ellen Davis
Fountain, Betsy White
Franke, Ann Davidson
Frey, Mary Currie
Fuchs, Jane Lucilie
Gale, Mary E. DeMauro
George, Lillian Lucille
Gibson, June Florence
Gift, Marjorie Irving
Glazier, Sarah Jennings
Glenn, Audrey Margaret
Glenn, Mary Myrtis
Goan, Barbara Lou
Gramling, Mary Josephine
Greenwald, Estelle Beatrice
Griffin, Harriet Rose
Griffin, Nancy Carlisle
Haigh, Ruth Mildred
Halbren, Rosalie Finn
Hamill, Mary Virginia
Hanks, Nancy
Harding, Joan Burrough
Harper, Elizabeth
Harper, Mary Lucille
Harrell, Helen Ruth
Harris, Gene Ragland
Harris, Lena Jane
Harriss, Dorothy Louise
Harward, Betty Sue
Hawkins, Catherine Watson
Hayes, Virginia Marcella
Hedden, Nancy Erwin

Orange, N. J.
Tulsa, Okla.
Lexington, Va.
Amapolis, Md.
Chattanooga, Tenn.
Mount Olive, N. C.
Santa Ana, Calif.
Plant City, Fla.
Durham, N. C.
New Haven, Conn.
Atlanta, Ga .
Lapeer, Mich.
Raleigh, N. C.
Hillsdale, Mich.
New Orleans, La.
Loving, N. M.
Durham, N. C.
Raleigh, N. C.
Durham, N. C.
Montgomery, Ala.
Cristobal, C. Z.
Augusta, Ga.
Rome, N. Y.
Southern Pines, N. C.
Charlotte, N. C.
White Plains, N. Y.
Roanoke, Va.
Thomasville, Ga.
Durham, N. C.
Fountain, N. C.
Louisville, Ky.
Philadelphia, P.
South Miami, Fla.
Durham, N. C.
Spartanburg, S. C.
Atlanta, Ga.
Altoona, Pa.
Bradenton, Fla.
Washington, D. C.
Manhasset, N. Y.
Asheville, N. C.
Gadsden, Ala.
Hagerstown, Md.
Macon, Ga.
Louisburg, N. C.
East York, Pa.
New York, N. Y.
Huntington, W. Va.
Montclair, N. J.
Rutherford, N. J.
Tampa, Fla.
Springfield, Ohio
Birmingham, Mich.
Elizabeth City, N. C.
Durham, N. C.
Sanford, N. C.
Durham, N. C.
Durham, N. C.
State Road, N. C.
Detroit, Mich.

Hendricks, Mary Elizabeth
Heykoop, Alida Carolina Jacoba
Hickox, Helon Louise
Higgins, Margaret Elizabeth
Hoff, Elizabeth DuBose
Holcomb, Ruth Lilian
Horton, Louise Lawson
Hough, Mary Jane
Hull, Patricia Ann
Hundley, Patricia Ann
Huntington, Nancy
Hurley, Betsy John
Hutchings, Lydia Marie
Izlar, Ellen Koss
Izlar, Laurie Virginia
Jentzen, Myrtis Caroline
Jones, Harriet Elizabeth
Jones, Mary Virginia
Jordan, Mary Katheryne
Jordan, Rose Anne
Jungmeyer, Helen Joyce
Kansteiner, Dorothy Joan
Kemper, Shirley Rose
Kendall, Ruth Lane
Kerr, Barbara Anne
Kester, Nancy Conrad Kilmer, Jean
Kinsey, Josephine Ann
Klenke, Joan Dolores
Kuykendall, Rowena Beth
Lacombe, Barbara Ann
Lafko, Hilda Jean
Lake, Mary Ruth
Lasley, Emily Suc
Lauer, Joan
Laughlin, Helen Elizabeth
Launius, Martha Louise
Learmont, Carol Louise
LeCompte, Anne Louise
Lees, Evelyn Marjorie
Leitch, Jane Morgan
Lewis, Sheila Caroline
Ligon, Elsie Pauline
Little, Norma Lee
Lonius, Mary Katherine
Love, Mary Elizabeth
Lundeberg, Mary Naomi
Lynch, Irene Claire
Lyttle, Susan Warren
Mackey, Constance Jean
MacSpadden, Mary Jean
Mall, Nancy Elizabeth
Manley, Emma Hall
Mapp, Helen Beatrice
Markham, Anita Beverly
Martin, Alice Kathlyn
Matthaus, Barbara Lee
McClure, Margaret Elizabeth
McCrary, Martha Penn
McDonald, Elizabeth

Durham, N. C.
Enka, N. C.
Hollywood, Fla.
Greensboro, N. C.
Dyersburg, Tenn.
Birmingham, Ala.
Jacksonville, Fla.
Mebane, N. C.
Charlotte, N. C.
Cincinnati, Ohio
Evanston, Ill
Greensboro, N. C.
Durham, N. C.
Winston-Salem, N. C.
Ocala, Fla.
Atlanta, Ga.
Sanatorium, N. C.
Washington, D. C.
Sao Paulo, Brazil
Saxapahaw, N. C.
Tampa, Fla.
Basking Ridge, N. J.
Savannah, Ga.
Albemarle, N. C.
Elizabeth, N. J.
Winston-Salem, N. C.
Grafton, Mass.
Oak Ridge, Tenn.
Atlanta, Ga.
Durham, N. C.
Maplewood, N. J.
Dover, N. J.
Charlotte, N. C.
Winston-Salem, N. C.
Orchard Park, N. Y.
Westfield, N. Y.
Monroe, Ga.
Meriden, Conn.
Lakewood, N. J.
Asheville, N. C.
Richmond, Va.
Miami, Fla.
Durham, N. C.
Norfolk, Va.
Dearborn, Mich.
Durham, N. C.
Washington, D. C.
Jersey City, N. J.
Zanesville, Ohio
Pittsburgh, Pa.
Boca Raton, Fla
Louisville, Ky.
Asheville, N. C.
Buena Vista, Va.
Elizabeth City, N. Y.
Pittsburgh, Pa.
Miami, Fla.
Bradenton, Fla.
Lexington, N. C.
Englewood, N. J.

McDonald, Flora Elizabeth
McFarlan, Margaret Ann
McLeod, Nancy Elizabeth
McGrael, Ruth Katharine McLean, Nancy Llizabeth McPherson, Jeanne Dutton Meadows, Ella McLendel Meehan, Gloria Frances Melvin, Jean Isabella Mendenhall, Shirley Ann Merrill, Margaret Noble Mertz, Phyllis Jane Messerly, Patricia Ann Mill, Charlotte Mathilda Miller, Elenore Dorothy
Moore, Elinor Ray
Moore, Patricia Lou
Moorer, Gatra
Morgan, Gene Morton
Morrison, Ellen Earnhardt
Morrison, Harriett Elizabett.
Moseley, Leslie
Moser, Nina Sue
Mousmoules, Estelle
Murray, Elizabeth Cornelia
Neal, Muriel Frances
Nelson, Margaret McMurran
Nesbitt, Martha Phillips
Nesmith, Nancy
Neuhauser, Marilyn Justyn
Nichols, Athena Gloria
Nicholson, Elizabcth
Nixon, Janet Mildred
Noble, Jean Leverton
Nobles, Dorothy Gertrude
Norcross, Marcia Lee
Oatfield, Susan Joy
Olson, Nancy Nelle Osteen, Claudia Louise Owen, Betty Royall Painter, Lois Corinna Palmer, Jeanne Moody Patton, Alice Lucinda Pecktal, Susan Lavinia Penfield, Margaret Anne Phillips, Cherry Christine Pickens, Celia Elizabeth
Poplin, Edna Mae
Powe, Mary Louise F'roctor, Ella Anne
Purinton, Joyce Ward
Quinn, Marie
Ragan, Nancy Louise
Rankin, Ann Weedon
Ransom, Doris Hurley
Reed, Carolyn Lois Reifsnyder, Natalie Fay Richards, Joan Elizabeth Richardson, Gene Stevens Riley, Phyllis Bowen

Durham, N. C.
Fort Thomas, Ky.
Pittsburgh, Pa.
Miami Beach, Fla.
Rochingham, N. C.
Ocala, Fla.
New Bern, N. C.
Durham, N. C.
Gastonia, N. C.
Dayton, Ohio
Palatka, Fla.
Logansport, Ind.
Jacksonville, Fla.
Birmingham, Mich.
East Rockaway, N. Y.
Palatka, Fla.
Jellico, Tenn.
Tulsa, Okla.
Durham, N. C.
Durham, N. C.
High Point, N. C.
Uniontown, Ala.
Winston-Salem, N. C.
Durham, N. C.
Durham, N. C.
Shawnee, Okla.
Portsmouth, Va.
Birmingham, Ala.
Garden City, N. Y.
Phoenixville, Pa .
Sumter, S. C.
Durham, N. C.
Winchester, Va
Easton, Md.
Pensacola, Fla.
Tampa, Fla.
Arlington, Va.
St. Petersburg, Fla.
Rockingham, N. C.
Newton, N. C.
Prospect Hill, N. C.
Albemarle, N. C.
Durham, N. C.
Kingsport, Tenn.
West Hartford, Conn.
Birmingham, Ala.
Lincolnton, N. C.
Rocky Mount, N. C.
Durham, N. C.
Durham, N. C.
Bradenton, Fla.
York, Pa.
Greeneville, Tenn.
Concord, N. C.
Snow Hill, N. C.
St. Petersburg, Fla.
West Chester, Pa.
Elberon, N. J.
Eustis, Fla.
Raleigh, N. C.

Roberts, Wilma Lucile
Robinson, Mary Kowland
Rodgers, Tillie Virginia
Rose, Estelle
Rothrock, Mary Ella
Rousseau, Nancy Hart
Rumble, Emily Elisabeth
Rushing, Betty ,Marie
Savage, Jean
Sawyer, Ellen Louise
Saylor, Letty Lois
Schwartz, Roslyn Charlotte
Shapleigh, Shirley
Shaw, Constance Eleanor
Shaw, Dorothy Patricia
Sheehan, Norma Winifred
Shoaf, Rita Marie
Shonk, Margaret Ann
Siachos, Thalia Arthur
Simpson, Sarah Louise
Skaale, Elizabeth Ann
Skene, Dorothy Eugenia
Skinner, Marilyn Dale
Slaven, Katharine Hooper
Smith, Anne
Smith, Betty Maude
Smith, Claudia Pemberton
Smith, Mary Elizabeth Maldoon
Smith, Mary Jane
Speer, Billie Ruth
Spoon, Dorothy Dell
Steele, Kathryn Barbara
Steele, Virginia Madison
Stemple, Peggy Gizella
Stewart, Lena Renee
Stewart, Sara Ann
Stivers, Marilyn Anne
Stone, Eugenia
Sturgis, Lillian Eloise
Sullivan, Rachel
Sumner, June Sharon
Swartswelter, Anne
Swenson, Verona Annette
Taylor, Mildred Louise
Taylor, Patricia Anne
Taylor, Shirley Edna
Thompson, Lillian
Tilley, Eloise Grace
Tilley, Joye Lee
Tinnin, Dorothy Louise
Toms, Julia Carver
Tracy, Peggy Ann
Turner, Betty Jean
Tynes, Edith Elizabeth
Vosburgh, Mary Elizabetn
Wadlington, Bernice
Waggoner, Allison Barnwell
Walker, Audrey Kendall
Walston, Jean Rowe
Walters, Elizabeth Roberta

Granite Falls, N. C.
Ashtabula, Ohio
Washington, N. C.
Durham, N. C.
Lexington, N. C.
Nurth Wilkesboro, N. C.
Swarthmore, Pa.
Savannah, Ga.
Lakewood, Ohio
Lakewood, Ohio
Durham, N. C.
Newark, N. J.
Wilmington, Del.
Takoma Park, Md.
Shaker Heights, Ohio
Montclair, N. J.
Cristobal, C. Z.
Dawes, W. Va.
Lenoir, N. C.
Oakboro, N. C.
Raleigh, N. C.
Atlanta, Ga.
Zephyrhills, Fla.
Williamson, W. Va.
Norfolk, Va.
Bethel, N. C.
Fountain City, Tenn.
Durham, N. C.
Shelbyville, Tenn.
Albany, Ga.
Durham, N. C.
Atlanta, Ga.
Washington, D .C.
Belmont, Mass.
Durham, N. C.
Mobile, Ala.
Maplewood, N. J.
Fitzgerald, Ga.
Ocala, Fla.
Durham, N. C.
Washington, D. C.
Youngstown, Ohio
Morganton, N. C.
Durham, N. C.
Rye, N. Y.
Irvington, N. J.
Efland, N. C.
Roanoke Rapids, N. C.
Durham, N. C.
Fayetteville, N. C.
Durham, N. C.
Greensburg, Pa.
Evanston, Ill.
Birmingham, Ala.
Durham, N. C.
Fort Bragg, N. C.
Atlanta, Ga.
Bloomfield, N. J.
Birmingham, Ala.
Atlanta, Ga.

Waring, Mary Louise
Watson, Lucy Rutledge
Weaver, Charlotte Anne
Weaver, Elizabeth Dail
Weil, Barbara Sterling
Westbrook, Betty Sue
Westbrook, Janet Virginia
Wharton, Joanne Clark
Whetstone, Gloria Kathleen
White, Dorothea Jeanne
Wilkins, Jane Pittman
Wilkinson, Myrtle Jones
Willard, Patricia Cole
Williams, Shirley Anne
Williamson, Nancy Gilliard
Willoughby, Lois Jean
Wilson, Rose Malie
Wimberly, Mary Mack
Wimberly, Patricia Anne
Wise, Prudence Stanley
Wise, Sue Anthony
Wise, Virginia Lucille
Womble, Ruth
Woodard, Dorothy Whitehead
Woods, Kathryn Ann
Wooten, Lillian Hooker
Wright, Meriwether Lewis
Wurmstich, Roberta Annamarie
Zittrouer, Shirley Ann

Chattanooga, Tenn.
Jacksonville, Fla.
Asheville, N. C.
Rutherfordton, N. C.
Sebring, Fla.
Wilmington, N. C.
Hemlock, N. C.
Washington, D. C.
Durham, N. C.
Alexandria, Va.
Sanford, N. C.
Jackson, Miss.
Raleigh, N. C.
Milton, Mass.
Miami Beach, Fla.
Johnstown, Pa.
Bradenton, Fla.
Jacksonville, Fla.
Eagle Lake, Fla.
Jacksonville, Fla.
Gainesville, Fla.
Winter Haven, Fla.
Winston-Salem, N. C.
Wilson, N. C.
Washington, N. C.
Greenville, N. C.
Durham, N. C.
Mountain Lakes, N. J.
Atlanta, Ga.

SOPHOMORE CLASS

Abbott, Nancy Warburton
Adams, Susan Parish
Aiken, Herminia Ursula
Amsbary, Susan
Anderson, Marcia
Angevine, Joan Anderson
Armistead, Mary Jean
Armstrong, Catharine Moss
Ashcraft, Mary Lee
Ashley, Elizabeth
Autry, Faye Isobel
Bailey, Dorothy Ann
Bailey, Marie Therese
Baird, Ann Logan
Baldwin, Ivy Eleanor
Barker, Patricia Anne
Beane, Carolyn Phyllis
Belly, Sally
Bice, Doris Jean
Bird, Frances Marie
Black, Patricia Carolyn
Blackard, Edith Warren
Bliss, Myrtle Anne
Bluhm, Frances
Bolick, Bertie Raenelle
Borden, Anna Miller
Bowen, Gloria Lois
Boyd, Emily Earle
Boyer, Nancy Lee

Bronxville, N. Y.
Atlanta, Ga.
Chevy Chase, Md.
Asheville, N. C.
'Toledo, Ohio
Ruchester, N. Y.
Roanoke, Va.
Hot Springs, Ark.
Louisville, Ky.
Vanceboro, N. C.
Fayetteville, N. C.
Jacksonville, Fla.
Durham, N. C.
Roanoke, Va.
Plainfield, N. J.
Wilkinburg, Pa.
Royal Oak, Mich.
Scarsdale, N. Y.
Haines City, Fla.
Durham, N. C.
Charleston, W. Va.
Chattanooga, Tenn.
Duthan, Ala.
Greensboro, N. C.
Conover, N. C.
Concord, Mass.
Daytona Beach, Fla.
Durham, N. C.
Toledo, Ohio

Braynard, Nancy Noble
Brink, Jean D'Arlene
Brogan, Betty Jean
Brown, Mary Louisa
Bruce, Katherine Jane
Bryson, Lillian Mary
Bullock, Iula Jane
Bunn, Agnes Sidney
Bunn, Carolyn Cooper
Cahn, Helene
Cameron, Elizabeth Blanche
Camp, Emily Moorshead
Camphausen, Janet
Carman, Carolyn Beers
Carter, Margaret J.
Cassels, Kitty
Caswell, Eugenia Ann
Caveness, Doris Marie
Caveness, Marjorie Lois
Clardy, Eleanor Westbrook
Cobb, Mary Virginia
Cochran, True Darlene
Coldwell, Marjorie J.
Colvin, Margaret T.
Cook, Catherine Florine
Cooke, Virginia Sylvania
Crum, Mary Mason
Cuesta, Noretta Marie
Culbreth, Betty Jean
Davis, Julia Lavinia
Deyton, Edith Ward
DiPaolo, Naida Amelita
Divine, Mary Hiils
Dobson, Jacquelyne Beatrice
Dritt, Mary Jane
Duke, Jane
Duncan, Mary Anne
Dunn, Sara Frances
Dunson, Dorothy Lee
Eelman, Marilyn
Estes, Caroline Brown
Evans, Clara Dorothy
Finkelstein, Shirley B.
Fonvielle, Betsy Keaton
Forehand, Ida Margaret
Fowler, Maude
Fox, Marian Clinch
Franklin, Helen B.
Frey, Marjorie
Garrett, Bertha Hicks
Gibson, Orene K.
Godwin, Evelyn Joyce
Gordon, Helen Elizabeth
Graff, Martha Edith
Griffith, Dorothy Howe
Gurney, Louise Cummings
Gwaltney, Bettye Jane
Harbour, Viola Marie
Harris, June Ruth
Hathaway, Betty Jane

Glen Cove, N. J.
Grosse Pointe, Mich.
Atlanta, Ga.
Asheville, N. C.
Palatka, Fla.
Durham, N. C.
Durham, N. C.
Spring Hope, N. C.
Dayton, Ohio
Bishopville, S. C.
Durham, N. C.
Lansdowne, Pa.
Wilmette, I11.
Jamaica, N. Y.
Fostoria, Ohio
Ellenton, S. C.
Orlando, Fla.
Greensboro, N. C.
Raleigh, N. C.
Pittsburgh, Pa.
Statesboro, Ga.
Norwalk, Conn.
Fall River, Mass.
Pleasant Ridge, Mich.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Tampa, Fla.
Raleigh, N. C.
Winston-Salem, N. C.
Raleigh, N. C.
Collingswood, N. J.
Knoxville, Tenn.
Fayetteville, N. C.
Atlanta, Ga.
Tampa, Fla.
Greenville, N. C.
Tulsa, Okla.
Summerville, Ga.
Paterson, N. J.
Birmingham, Ala.
New Britain, Conn.
Wilmington, N. C.
Wilmington, N. C.
Albany, Ga.
Tampa, Fla.
Perry, Fla.
Oak Ridge, Tenn.
Toledo, Ohio
Rockingham, N. C.
Durham, N. C.
Warren, Ark.
Winston-Salem, N. C.
Erie, Pa.
Durham, N. C.
Oneonta, N. Y.
Osceola, Ark.
Roanoke Rapids, N. C.
Monroe, N. C.
Portsmouth, Va.

Henderson, Cathryn Amne
Henderson, Ganelle Wilsor
Henry, Nancy Jane
Hicks, Margaret Telfair
Horne, Mary
Howe, Ethel Wheeler
Huckabee, Josephine
Huffman, Ruth J.
Hunter, Eleanor Ann
Hunter, Mary Elizabeth
Hursey, Berly June
Hutzler, Anne Jacqueline
Jackson, Elizabeth Claire
Jacobs, Rose Ame
James, Lois Elizabeth
Johnson, Martha
Jones, Laura Louise
Jordan, Philis Ellen
Keel, Shirley Elizabeth
Kelly, Jeannette Sage
Kern, Dolores Winn
Kilgo, Susanne
Kirtley, Muriel Ann
Kittrell, Pauline Hampton
Klussman, Thelma Marie
Knight, Ethel Eugenia
Koltinsky, Gloria
Kornegay, Jane Corpening
Kornfeld, Mary Fleming
Kuhl, Betty Louise
Lauer, Kay E.
Lee, Cecile
Lester, Helen Greene
Levine, Mary Norma
Lipman, Norma Ann
Lipsitz, Betty Lois
Lummus, Constance Patricia
Lyerly, Ann J.
Magruder, Lila Jean
Mahon, Daphne
Markin, Ann
McAdams, Martha Ann
McDonald, Aileen Earp
McDonald, Mary Frances
McGiehan, Dayne B.
McKennon, Martina Hellums
McLawhorn, Mamie Barnhill
McNary, Betty Lou
McNulty, Rosa Lee
McRae, Rosalind Jim
Meeker, Margaret Jean
Mercner, Helen Leah
Meredith, Dorothy Ann
Mertz, Beatrice Parry
Michaels, Marilyn Jear:
Miller, Dorothy Louise
Miller, Roberta Marie
Mims, Eleanor Holland
Moesta, Nancy Marilyn
Mooney, Elizabeth Jane

Atlanta, Ga.
Durham, N. C.
Richmond, Va.
Tampa, Fla.
Detroit, Mich.
Louisville, Ky.
Durham, N. C.
Lakewood, Ohio
Fayetteville, N. C.
Philadelphia, Pa.
Durlam, N. C.
Smithsburg, Md.
Portland, Conn.
Steubenville, Ohio
Kenmore, N. Y.
Atlanta, Ga.
Berryville, Va.
Indianapolis, Ind.
Forest Hills, N. Y.
Charlotte, N. C.
Washington, D. C.
Greenville, N. C.
Evanston, Ill.
Bradenton, Fla.
York, Pa.
Durham, N. C.
Princeton, Ky.
Virginia Beach, Va.
Louisville, Ky.
Coral Gables, Fla.
Evansville, Ind.
Tampa, Fla.
Ardmore, Pa.
Wilmington, N. C.
New York, N. Y.
Ahoskie, N. C.
Cnarlotte, N. C.
Jacksonville, Fla.
Washington, D. C.
Washington, D. C.
Ironton, Ohio
Wilmington, N. C.
Durham, N. C.
Durham, N. C.
Hartsdale, N. Y.
Dumas, Ark.
Winterville, N. C.
Greensboro, N. C.
Pittsburgh, Pa .
Sebring, Fla.
East Orange, N. J.
Westfield, N. J.
Fairmont, W. Va.
Elkins Park, Pa.
Gadsden, Ala.
Highland Park, N. J.
Warren, Ohio
Durham, N. C.
Grosse Pointe, Mich.
Charlotte, N. C.

Moore, Lorraine Rouillot
Morgan, Bobbie
Morrison, Kathryn Ann
Morse, Mary Ramsey
Moser, Jean Ogle
Naylor, Beatrice Claire
Nickerson, Jean Corliss
Nicklas, Nancy Lee
Northrop, Ruth Elizabeth
Oakes, Margaret jane
Oglesby, Edith Ann
O'Gorman, Kathleen Shaw
Olive, Charlotte Ray
O'Neil, Trilby Dickersor
Owen, Marian
Pace, Gladys Wooten
Palmer, Ruth Arlene
Parks, Genevieve
Patee, Jean Maric
Patten, Jo Carmen
Pecot, Marian
Percilla, Helen Blanchara
Plaster, Judith Steele
Prather, Frances Jean
Primrose, Patricia Ann
Queally, Kathleen Erin
Rae, Joanne
Ransom, Ann K.
Reap, Mildred Virginia
Register, Phyllis Roland
Reiter, Dorothy Faye
Reuter, Patricia Joyce
Rogers, Hazel Carmen
Rogers, Jane Haywood
Rogers, Jean Lo1s
Rogers, Margaret Craig
Rountree, Minnie Louise
Rowe, Jane Elizabeth
Rudy, Martha
Sargent, Mary
Sawyer, Margaret Devere
Scarborough, Jane Collier
Scates, Charmian
Schwartz, Sara Rose
Scott, K. Lee Stecle
Secrest, Mary Henrietta
Shippey, Mary Lou
Simpson, Mary Jane
Slaven, Nancy Waddell
Smith, Peggy Rose
Smith, Rosalie Gertrude
Stewart, Jane Ellerbe
Stewman, Emily L.
Stollings, Merewyn Jane
Sullivan, Elaine Cody
Swindell, Anne Hamlin
Taylor, Katharine Norwood
Templeton, Virginia Ann
Terrell, Katherine
Thomas, Talmadge

Daytona Beach, Fla.
Bailey, N. C.
St. Petersburg, Fla.
Swarthmore, Pa.
Frederick, Md.
Woodbridge, N. J.
Daytona Beach, Fla.
Pittsburgh, Pa.
Babylon, N. Y.
Malden, W. Va.
Kinston, N. C.
Blackville, S. C.
Durham, N. C.
Alexandria, Va.
Newton, N. C.
Albany, Ga.
Charlotte, N. C.
Kannapolis, N. C.
N. Little Rock, Ark.

McMinnville, Tenn.
New Orleans, La.
Albany, Ga.
Washington, D. C.
Hagerstown, Md.
Americus, Ga.
Washington, D. C.
Atlanta, Ga.
Atlanta, Ga.
Albemarle, N. C.
Durham, N. C.
Bishop's Head, Md.
Kenmore, N. Y.
Richmond, Va.
Chapel Hill, N. C.
Norristown, Pa.
Chevy Chase, Md.
Charlotte, N. C.
Meriden, Conn.
St. Petersburg, Fla.
Oilando, Fla.
Durham, N. C.
Cinarlotte, N. C.
Durham, N. C.
Miami, Fla.
Kannapolis, N. C.
Lillington, N. C.
Atlanta, Ga.
Hagerstown, Md.
Williamson, W. Va
Greenville, N. C.
Arlington, Va.
Charlotte, N. C.
Hampton, S. C.
Mallory, W. Va.
Balboa, C. Z.
Durham, N. C.
Winston-Salem, N. C.
Chattanooga, Tenn.
Jacksonville, Fla.
Louisburg, N. C.

Thompson, Annie Audrey
Thompson, Susanne DeVoe
Thorne, Virginia Lee
Tiller, Marian Newton
Tinsley, Barbara Lee
Todd, Donna Mae
Tommasi, Jean C
Vail, Doris Mae
Valentine, Florence Underwood
Van Steenberg, Neal M.
Vigodsky, Leah June
Vining, Elizabeth Anne
Waddell, Sally O'Neil
Wagoner, Christine Hough
Walker, Clara Einora
Walker, Jo Anne
Walker, Vineta Fern
Waller, Patricia Joan
Ward, Anna Katharine
Warren, Nancy Douglas
Way, Patricia Ann
Weaver, Beverly Ann
Weedin, Polly
Wehn, Mary Joanna
Wertenberger, Ila Marie
White, Elizabeth Marie
Whitener, Marthd Brown
Wiley, Margaret Jean
Wilhoit, Sally Jim
Wilkens, Jeanne Marie
Williams, Bess Eloise
Williams, Constance Faust
Williams, Nancy Mae
Willoughby, Marion Rose
Wilson, Susette
Wingate, Doris Angeline
Wolf, Elizabeth Mauney
Wood, Ann Dunlap
Woodward, Elizabeth Anne
Worthy, Rose Marion
Wright, Telen Turissa
Wygal, Elizabeth Gay

Abernethy, Martina Carolyn
Addington, Sally Ann
Albertson, Anne Jane
Allen, Mary Lucile
Ambrose, Elizabeth Lee
Andrews, Edith Young
Bailey, Edith Pou
Ball, Mary Katherine
Barber, Sara Ani
Barnett, Marilyn
Barnhart, Jean Wilson
Barzilay, Mary Jeanne
Bashore, Audrey Elaine
Baxter, Mary Elizabeth
Bayliss, Betty Delaney
Baynard, Barbara Margaret

Gresham, S. C.
Highland Park, N. J.
Rcanoke Rapids, N. C.
Brunswick, Ga.
Lynchburg, Va.
Lansdowne, Pa .
Hastings-on-Hudson, N. Y.
Pikeville, N. C.
Upper Montclair, N. J.
Greenwich, Conn.
Newberry, S. C.
Tryon, N. C.
Greensboro, N. C.
Walkertown, N. C.
Coldwater, Mich.
Sandersville, Ga.
Frederick, Okla.
Durham, N. C.
Dothan, Ala.
Durham, N. C.
Winnetka, Ill.
St. Petersburg, Fla.
St. Joseph, Mo.
Beaver, Pa.
Kent, Ohio
Baltimore, Md.
Jacksonville, Fla.
Pittsburgh, Pa.
Daytona Beach, Fla.
Birmingham, Mich.
Durham, N. C.
Macon, Ga.
Winston-Salem, N. C.
Jackson, Miss.
Anna, Ill.
Gastonia, N. C.
Charlotte, N. C.
High Point, N. C.
Raleigh, N. C.
Washington, N. C.
Durham, N. C.
Algoma, W. Va.

## JUNIOR CLASS

Greensboro, N. C.
Camp Forrest, Tenn.
Kane, Pa.
Durham, N. C.
Seattle, Wash.
Durham, N. C.
Washington, D. C.
Wilson, N. C.
Rocky Mount, N. C.
Chevy Chase, Md.
Oxford, N. C.
Lynbrook, N. Y.
Washington, D. C.
Orange, N. J.
Richmond, Va.
St. Petersburg, Fla.

Becker, Jayne Elien
Beckerdite, Billie Rose
Bell, Linda
Birmingham, Joan Louise
Bowmall, Suzanne Clare
Brackney, H. Jane
Bramlett, Jean Margaret
Branch, Jamie Ornice
Brimberry, Carolyn Virginia
Brinn, Eleanor Winslow
Brittain, Barbara Ann
Brooks, Eleanor Randolph
Brooks, Elizabeth
Brooks, Margaret Patterson
Brown, Margret Ware
Brown, Mary Clapp
Brown, Mary Emily
Bryant, Betty Ann
Buchanan, Betsy
Burkhalter, Virginia Grace
Bussell, Ida Blanche
Campbell, Gloria Helen
Campbell, Virginia Mae
Cardinal, Ruth Maureen
Carter, Virginia Rutherford
Cauthers, Margaret Anne
Chapman, Betsy Jeanne
Clevenger, Shirley
Clute, Marjorie Ann
Coile, Martha Alden
Covington, Sara Catherine
Cozart, Patsy Burns
Craig, Anne Elizabeth
Craig, Florence Ruth
Crim, Patricia
Crowell, Catherine Gordor.
Damtoft, Anne Elizabeth
Dawson, Joyce Ellen
Deuell, Estelle Virginia
Dick, Shirley May
Dickerson, Sara Ellen
Dickie, Phyllis Madelene
Dimmitt, Mary Frances
Duke, Margaret Lee
Dunn, Jean Elliott
Eagles, Pauline Jeanne
Edmunds, Alice Ann
Elder, Mary Frances
Ellis, Frances Huguenin
Emhardt, Margaret Ann
Erwin, Jean Crawford
Evans, Mary Winborne
Fagan, Virginia
Fariss, Charlotte Ann
Ferree, Clara Marie
Foley, Eleanor Page
Fothergill, Margaret
Foutz, Patsy Ruth
Frans, Margaret Ann
Freed, Mary Kathryn

Kaufman, Texas
Concord, N. C.
Springfield, Tenn.
Lewistown, Pa.
Hollywood, Fla.
Toledo, Ohio
Miami, Fla.
Memphis, Tenn.
Miami Beach, Fla.
Sanford, N. C.
Tallahassee, Fla.
Dallas, Texas
Upper Montclair, N. J.
Burlington, N. C.
Asheville, N. C.
Asheville, N. C.
Teaneck, N. J.
Lakeland, Fla.
Durham, N. C.
Jacksonville, Fla.
Durham, N. C.
Nashua, N. H.
West Englewood, N. J.
Montgomery, Ala.
Durham, N. C.
Pedro Miguel, C. Z.
Morristown, N. J.
Toledo, Ohio
Upper Darby, Pa.
Washington, D. C.
Gastonia, N. C.
Fuquay Springs, N. C.
Memphis, Tenn.
Asheville, N. C.
Fort Lauderdale, Fla.
Hickory, N. C.
Asheville, N. C.
Douglaston, N. Y.
Newport News, Va.
Mount Vernon, N. Y.
Lakeland, Fla.
East Orange, N. J.
Swarthmore, Pa .
Greenville, N. C.
Leaksville, N. C.
Fountain, N. C.
Delray Beach, Fla.
Durham, N. C.
Macon, Ga.
Alexandria, Va.
Spartanburg, S. C.
Edenton, N. C.
Decatur, Ga.
Ft. Benning, Ga.
Winston-Salem, N. C.
Eastville, Va.
Guayaquil, Ecuador
Salisbury, N. C.
Hickory, N. C.
Reading, Pa.

French, Emma Elizabeth Fursdon, Doris Rogers Gardner, Mary Randolph Gentner, Dorothie Florence
Gibson, Marilyn Margaretta
Goodwin, Mary Frances
Gross, Martha Holcomb
Guest, Carol
Gunn, Virginia Anne
Hall, Pauline Freedley
Hamilton, Margaret Adelaide
Harkey, Doris
Harmon, Jeanne Leona
Harrell, Elizabeth Ann
Harris, Bennie
Hartman, Virginia Lucille
Helmbold, Edith Edwards
Hermance, Barbara Virginia
Hollings, Doreen
Hollmeyer, Ruth Katrine
Holmes, Sarah Elizabeth
Holt, Betsy Clifford
Hood, Mary Rawlings
Huckabee, Margaret Kathryn
Huckle, Sara Wycliffe
Hudson, Frances
Johnson, Carolyn Jean
Johnson, Lois Rebecca
Jones, Margaret Louise
Kafka, Bluma May
Kalquist, Majel Louise
Kauble, Virginia Fay
Kelly, Alice Miriam
Kern, Catharine Dean
Kidder, E. Frances
Knoll, Louella Dorothy
Koontz, Carolyn Ann
Kupp, Elaine Beatrice
Lane, Juanita D.
Larkin, Ann Crawford
Lee, Clara Elizabeth
Lehman, Margaret Rae
Lentz, Jeannette Harris
Lewis, Mary Clare
Linkins, Nancy Winifred
Long, Rosalie Elma
Lowrance, Margaret Leigh
MacMurtrie, Nancy
Malley, Martha Ann
Mansfield, Lillian Alice
Marshall, Patricia
Matthaus, Jane Annette
McCarthy, Eunice M.
McCarthy, Mary Ellen
McClure, Merlyn Pauline
McDermott, Muriel Pierce
McDonald, Jane Mellon
McElroy, Antoinette Paulin
McNeil, Jessie Mason
Meighen, Margaret Susar.

Woodstock, Va.
Petersburg, Va.
Raleigh, N. C.
Philadelphia, Pa.
Elizabethton, Tenn.
Arkansas City, Ark.
Birmingham, Ala.
West Hartford, Conn.
Wilson, N. C.
Haddonfield, N. J.
Fort Myers, Fla.
Charlotte, N. C.
Vienna, Va.
Northville, Mich.
Lowell, N. C.
Upper Montclair, N. J.
Washington, D. C
Nashua, N. H.
Rahway, N. J.
New York, N. Y.
Fayetteville, N. C.
Greensboro, N. C.
Richmond, Va.
Durham, N. C.
Rock Hill, S. C.
Anderson, Ind.
Rocky Mount, N. C.
Alexandria, Va.
Rydal, Pa.
Richmond, Va.
Westfield, N. J.
St. Augustine, Fla.
Troy, Ala.
Washington, D. C.
Joiiet, Ill.
Brooklyn, N. Y.
Washington, D. C.
Depew, N. Y
Roxboro, N. C.
Burlington, N. C.
Middleburg, N. C.
Toledo, Ohio
Albemarle, N. C.
Washington, D. C.
Washington, D. C.
Columbia, S. C.
Durham, N. C.
Philadelphia, Pa.
Wildwood, N. J.
Durham, N. C.
Port Chester, N. Y.
Miami, Fla.
Watertown, Mass.
Washington, D. C.
Cincinnati, Ohio
Durham, N. C.
Charlotte, N. C.
Latrobe, Pa.
El Paso, Texas
Tampa, Fla.

Merrill, Mary Constance Messenkopf, Eleanor Ada
Messner, Frances Evelyn
Mickelsen, Helen Jean
Milam, Frances Nunley
Murchison, Betty Powell
Neely, Beverly Joy
Neifert, Lois Irene
Neuhoff, Ruth Marguerite
Noell, Jane Carolyn
Outler, Helen G.
Palmer, Margaret
Paradies, Janice Maree
Paty, Matilda Jane
Pearse, Mary Barbara
Peterson, Margaret Frances
Pettit, Gwendolyn Marie
Pickard, Annie Sue
-Pierce, Ruth Aileen
Pierson, Gwendolyn
Pierson, Marion Earl
Pope, Will Ccoper
Preston, Delia Joyce
Reap, Margaret Anne
Recio, Nora Elisa
Rhodes, Marian Johnson
Richards, Ellen Louise
Ridout, Betty Flora
Rimer, Allienne Marie
Rockey, Jean
Rodwell, Margaret Jeffress
Sachs, Barbara
Saum, Mary Elton
Schimel, Jeanne Merrill
Schmidt, Evelyn D.
Schock, Barbara Joan
Schwarz, Laura Anne
Sears, Ann I.
Seeley, Mary Elisabeth
Seifert, Barbara Lucille
Shanley, D. Elizabeth
Shouse, Betty Davis
Silliman, Patricia Brandel
Simpson, Frances Caroline
Smith, Elizabeth Coppridge
Smith, Estelle H.
Smith, Marjory
Smith, Mary Louise
Smoot, Ann Wilson
Spicer, Leah Virginia
Stallings, Betty Wakefielci
Stapleford, Anne Wilson
Stewart, Mary Nancy
Strange, Jean Marie
Stutts, Mary Elizabeth
Sunderman, Ruth Elizabeth
Swofford, Margaret Elizabeth
Talton, Hilda Yvonne
Taylor, Margaret Green
Taylor, Mary Jo

Palatka, Fla.
Erie, Pa.
Great Neck, N. Y.
Washington, D. C.
Sutherlin, Va.
Rocky Mount, N. C.
Allanta, Ga.
Tamaqua, Pa .
St. Louis, Mo.
Durham, N. C.
Washington, D. C.
Ocala, Fla.
Atlanta, Ga.
Elizabethton, Tenn.
Raleigh, N. C.
Rutherford, Tenn.
Ocean City, N. J.
Durham, N. C.
Ocean Grove, N. J.
Atlanta, Ga.
Atlanta, Ga.
Dunn, N. C.
Winston-Salem, N. C.
Albemarle, N. C.
Guayama, Puerto Rico
Winchester, Va.
Pniladelphia, Pa.
Pelham Manor, N. Y.
Charlotte, N. C.
Westfield, N. J.
Warrenton, N. C.
New York, N. Y.
Alexandria, Va.
Jersey City, N. J.
North Plainfield, N. J.
Arlington, Va.
Webster Groves, Mo.
Birmingham, Mich.
Durham, N. C.
New York, N. Y.
Kirkwood, Mo.
Umatilla, Fla.
Jamestown, N. Y.
Oakboro, N. C.
Charlotte, N. C.
Philadelphia, Pa .
Alexandria, Va.
Winston-Salem, N. C.
Sea ford, Del.
Henderson, W. Va.
Jackson, Tenn.
Durham, N. C.
Lancaster, S. C.
Richmond, Va.
Erwin, N. C.
Arlington, Va.
Ellenboro, N. C.
Durham, N. C.
Roanoke Rapids, N. C.
Shaker Heights, Ohio

Theodorsen, Gerd Muriel Thompson, Charlotte Evelyn Threadgill, Mary Catherine Throne, Margaret Elizabeth Toms, Mary Elizabeth Torbett, Adah Elizabeth Trask, Elizabeth Morton
Traylor, Joan Louise Troxell, Betty Jane Tucker, Charlotte Clements Tucker, Mary Arden Upshur, Florence Holland Van Trine, Marian Thwing Venable, Elizabeth Ormond Waggoner, Martha Elizabeth Wagner, Charlotte A.
Waits, Charlotte Virginia
Walker, Bette Louise
Walker, Dreama Bottoms
Walters, Mary Elizabeth
Watson, Becky
Weiland, Patricia Ruth
Weintraub, Ronda Joyce
Whitehead, Frances Anne
Whitney, Marjorie Ruth
Wiles, Myrtle Elith
Wilkinson, Gladys Virginia
Wineland, Mary f́lice
Winter, Mary Eiizabeth
Wiseman, Alice Margaret
Wolfe, Winifred Cox
Womble, Aetna Katherine
Worthy, Mary Ann
Wright, Frances Minor
Yates, Maxine Louise

Hampton, Va.
Charlotte, N. C.
Rockingham, N. C.
York, Pa.
Wilmington, N. C.
Huntington, W. Va.
Wilmington, Del.
Springfield, Mo.
Canton, Ohio
Durham, N. C.
Warrenton, N. C.
Eastville, Va.
Durham, N. C.
Durham, N. C.
Misenheimer, N. C.
York, Pa.
Montgomery, Ala.
Flint, Mich.
Pittsburgh, Pa.
Miami Beach, Fla.
I_akeland, Fla.
Coral Gables, Fla.
New York, N. Y.
Enfield, N. C.
Washington, D. C.
Burlington, N. C.
Roanoke, Va.
Dayton, Ohio
Pittsburgh, Pa.
Avondale, N. C.
Elizabethton, Tenn.
Durham, N. C.
Sliaker Heights, Ohio
Birmingham, Ala.
Pineville, N. C.

## SENIOR CLASS

Akers, Rowena Betty
Ammerman, Jane
Anderson, Emily Katherine
Barnwell, Gwin
Beattie, Mary Elizabeth
Beggs, Betty Ann
Bennethum, Marjorie Gurnett
Bledsoe, Betty Jane
Boehme, Mary Harding
Brahany, Gloria Anne
Britt, Marie Baker
Brown, Nancy E.
Buchanan, Alma Anne
Burdett, Joneta
Burgard, Annette Crawford
Busichaert, Elaine Gabrielle
Cameron, Marjorie Louis:
Carter, Jacqueline Anne
Cassady, Mary Ann
Chelimer, Edith Avery
Church, Willa Lee
Clarkson, Sarah B.
Cohen, Joyce Rath

Frederick, Md.
Orange, N. J.
Detroit, Mich.
Gastonia, N. C.
Winchester, Va.
Baltimore, Md.
Aurora, Ill.
Greensboro, N. C.
Ft. Lauderdale, Fla.
Richmond, Va.
Lumberton, N. C.
Hillsboro, N. C.
Harriman, Tenn.
Atlanta, Ga.
Columbus, Ga.
New York, N. Y.
Meriden, Conn.
Drexel Hill, Pa.
Park Ridge, Ill.
New Rochelle, N. Y.
Youngstown, Ohio
Charlotte, N. C.
Philadelphia, Pa.

Colton, Emmi
Cooper, Alice Heygel
Corwin, Patricia Ann
Councill, Grace McNinch
Courts, Sara Anne
Cox, Dorothy Lucile Cunliff, Elizabeth Wilson
Dabbs, Margaret Louise
DeLong, Lois Ellen
De Marzy, Verna
Derrick, Irene Ritter
DeVan, Cornelia Imogene
Doctor, Anna Lou
Donovan, Caroline Catherine
Dopke, Virginia H.
Duffy, Ruth Ame
Fensterwald, Alice A.
Fetherston, Dorothy Jear
Fike, Ruth Marie
Fleck, Elizabeth Jane
Fletemeyer, Gloria Lou
Fogle, Marjorie Elberta
Foote, Marie Lovett
Franklin, Amy Josephine
Fultz, Beverly Ann
Gantt, Betty Sue
Garrison, Barbara Jane
Gaudynski, Joan Louise
Gobbel, Margaret McElrath
Gosford, Barbara Olyve
Green, Cathie Ann
Green, Harriet
Griggs, Harriet
Griswold, Marie Frances
Groh, Phyllis Marie
Gross, Beatrix Cobb
Hanlon, Lois Jeanne
Hanson, Patricia Ann
Harris, Martha Jane
Hartz, Hazel Rodgers
Heffner, Ann Thornton
Hemlick, Harriet Wright
Heykoop, Hendrika Georgia
Hickok, Sylvia Hoover
Hill, Althea Frances
Holmes, Carol Ruth
Hunter, Ann Shirley
Huntsman, Carmen
Hylton, Harriet
Ipock, Annie Charlton
Jenkins, Margaret L.
Jewell, Betty Bell
Jordan, Sara Alice
Kelly, Patricia Ann
Kiley, Alyce Jeanne
Klotz, Peggy Jean
Lanham, Olivia Sherertz
Launi, Nettie Margaret
Lewis, Betty Lasley
Lewis, Dorothy Mrooks

Hendersonville, N. C.
Asheville, N. C.
Harrisburg, Pa.
Buone, N. C.
Reidsville, N. C.
Miami, Fla.
Rose Hill, N. C.
Mayesville, S. C.
Pontiac, Mich.
Euclid, Ohio
Brookline, Mass.
Mobile, Ala.
High Point, N. C.
Milford, Pa.
Milwaukee, Wis.
Rocky Mount, N. C.
Norfolk, Va.
Baldwin, L. I., N. Y.
Ahoskie, N. C.
Mt. Holly Springs, Pa.
Detroit, Mich.
Naranja, Fla.
Mobile, Ala.
Oak Ridge, Tenn.
Hagerstown, Md.
Newport News, Va.
Maplewood, N. J.
Milwaukee, Wis.
Suffolk, Va.
Philadelphia, Pa .
Raleigh, N. C.
Abingdon, Va.
Waltham, Mass.
Washington, D. C.
Hagerstown, Md.
Durham, N. C.
Odessa, N. Y.
Hopewell, Va.
Newport News, Va.
New York, N. Y.
Ashland, Ky.
Fairmont, W. Va.
Enka, N. C.
Durham, N. C.
Willimantic, Conn.
Ridgefield, N. J.
Philadelphia, Pa.
Washington, D. C.
Welch, W. Va.
Elkin, N. C.
Salisbury, N. C.
Detroit, Mich.
Raleigh, N. C.
Durham, N. C.
Evanston, Ill.
Staunton, Va.
Ventnor, N. J.
Arlington, Va.
Walkertown, N. C.
Los Angeles, Calif.

Lockhart, Ann
Lovelace, Mary Ellen
Lowrie, Margaret
Lummis, Frances Lytle
Main, Barbara
Makovsky, Alice Anne
Manahan, Mary Carolyn
Martin, Eleanor Warren
Mayers, Catherine Ann
McCarty, Jerree Ashton
McCaskill, Jean
McCrummen, Nancy
McGowan, Martina
McMahan, Betty Anne
McMorries, Cynthia Read
Meriwether, Jane
Merris, Dora Kendig
Mill, Roberta Ann
Minnich, Gilda Hazel
Mirick, Marjoric
Moffett, Margaret Paul
Moore, Birdie Jean
Newbold, Betty
Newman, Camille Lilly
Nicholl, Elinore K.
Oakes, Lucie Mae
Oakes, Lucille McCoy
O'Malley, Gertrude Michael
O'Neill, Norine Elizabeth
Otto, Margaret
Face, Emma Jean
Parker, Charlene Louise
Parsons, Frances Virginia
Perkins, Barbara Louise
Perkins, Janet
Poe, Lucy Naldi
Prather, Elizabeth Anne
Puett, Corinne
Quinn, Jacqueline
Reed, Earlyn Jo
Rhodes, Frances Pollard
Rial, Rhoda Valerie
Ritch, Lois Wilson
Ritchey, Velma Jayne
Roberts, Rachel Evans
Romaine, Ruth Marie
Rose, Elaine Irene
Russell, Elsie Jean
Saperstein, Passie O.
Saunders, Gladys Mae
Schenck, Helene Jocelyn
Scott, Anna Ruth
Sherrill, Jane
Smiseth, Gwendolyn E.
Smith, Barbara
Smith, Ethelyn Marie
Smith, Judith Brevoort
Smith, Margaret Elisabeth
Smith, Wilma Verniece
Smither, Alice Haizlip

Wadesboro, N. C.
Washington, D. C.
Bowling Green, Ohio
Charlottesville, Va.
Ormond Beach, Fla.
Boonton, N. J.
Camden, Del.
Sinaker Heights, Ohio
Shaker Heights, Ohio
Glendive, Mont.
Miami, Fla.
Birmingham, Ala.
Highland Park, Ill.
Mocksville, N. C.
Miami Beach, Fla.
Kansas City, Mo.
Towanda, Pa.
Birmingham, Mich.
York, Pa.
Shelburne Falls, Mass.
Camden, N. J.
West Palm Beach, Fla.
Newport News, Va.
Cinarlotte, N. C.
Pliladelphia, Pa .
Malden, W. Va.
Weldon, N. C.
Rahway, N. J.
Havana, Cuba
Philadelphia, Pa.
Zebulon, N. C.
Lakewood, Ohio
Altoona, Pa.
Rutland, Vt.
Rutland, Vt.
Durham, N. C.
Hagerstown, Md.
Dallas, N. C.
York, Pa.
Lake Worth, Fla.
Washington, N. C.
Buffalo, N. Y.
Charlotte, N. C.
Bethlehem, Pa.
Mount Vernon, N. Y.
E. Cleveland, Ohio

New York, N. Y.
Glencoe, Ill.
New York, N. Y.
Durham, N. C.
Pittsburgh, Pa.
Kannapolis, N. C.
Charlotte, N. C.
St. Petersburg, Fla.
Fall River, Mass.
Daytona Beach, Fla.
Greystone Park, N. J.
Washington, Ill.
Durham, N. C.
Winston-Salem, N. C.

Smoot, Lucile Cobb
Sour, Nancy
Stanton, Tommye
Stapf, Edith Ellen
Stark, Carol Jane
Stark, Jeanne McGilvray
Stone, Mary Catherine
Stride, Elaine
Suiter, Virginia Ghio
Taylor, Betty Ann
Tecklin, Helen Barbara
Thackston, Kathryn Inez
Theodorsen, Gerd Muriel
Thigpen, Dorathy Dotger
Thomas, Reba Carolyn
Thornton, Marilyn Edith
Todd, Doris Louise
Toole, Cora Elizabeth
Tower, Jean Frances
Turner, Dorothy
Upshaw, Nancy Miller
Vandiver, Evelyn Florence
Vatz, Betty Abelman
Vereen, Jessie Louise
von Nardroff, Elfrida
Ward, Patricia Marie
Weiland, Johanna Jean
Wenger, Nancy Jane
Wethington, Lois Ruppenthal
White, Anne Douglass
Whitely, Hulda Ruth
Wilson, Mary Allen
Wood, Anne
Wooten, Terry Clair
Worth, Elizabeth Millner
Wright, Jesse Hargrave Gordon
Yokeley, Martha Jean
Young, Cora Lynn
Yount, Marea Jordan
Zehmer, Margaret Tyler

Tarboro, N. C.
Shreveport, La.
High Point, N. C.
Cristobal, C. Z.
Erie, Pa.
Bethlehem, Pa.
Dillon, S. C.
Biddeford, Me.
Weldon, N. C.
Tampa, Fla.
New York, N. Y.
Durham, N. C.
Hampton, Va.
Charlotte, N. C.
Durham, N. C.
Oakfield, N. Y.
Alexandria, Va.
Aberdeen, N. C.
Hanover, Mass.
Rocky Mount, N. C.
Raleigh, N. C.
Durham, N. C.
Atlanta, Ga.
Miami, Fla.
New York, N. Y.
Lakeland, Fla.
Coral Gables, Fla.
Catonsville, Md.
Durham, N. C.
Nashville, Tenn.
High Point, N. C.
Birmingham, Ala.
Braintree Highlands, Mass.
Shellman, Ga.
Durham, N. C.
Lexington, N. C.
Winston-Salem, N. C.
Raleigh, N. C.
Graham, N. C.
Birmingham, Ala.

SPECIAL STUDENTS

Allen, Peggy
Alley, Mary Lee
Ardrey, Estelle
Beam, Billy Beth
Black-Schaffer, Robin
Blair, Carolyn Waring
Cougle, Syble Lawson
Craven, Mary K.
Duke, Lucretia B.
Elrod, Ida Beth Heatly
Eudy, Sarah Nellie
Freeman, Sylvia Ray
Goldstein, Sylvia L.
Gooch, Irene Hadden
Griffin, Marian S.
Hamblen, Mrs. E. C.
Harris, Gladys Hinson
Haskew, Euphie Vera

Durham, N. C.
Durham, N. C.
Durham, N. C.
Cherryville, N. C.
Durham, N. C.
Lynbrook, N. Y.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
University, N. C.
Durham, N. C.

Hollister, Arthealia M.
Jackson, Edith Henrietta Riggs
Lawrence, Lottic Margaret
Leibowitz, Frances Hindin
Lemen, Wilhelmina
Linthicum, Elizabeth Balerma
Maner, Adelaide
McSwain, Mary J.
Messicks, Lillian Vernell
Nicholson, Mrs. William M.
Regan, Ruth M.
Renn, Lydia Steele
Rhoad, Betty Claire
Rice, Mrs. Cecil Barth
Sawyer, Fay Iris
Schneidman, Madeleine G.
Sealy, Marian Sanford
Spaulding, Helen Gregory
Taylor, Fanny Sue
Teel, Joyce Embry
Tilley, Ruby Elizabeth
Warren, Helen Coburn
Weaver, Betty Lou
Williams, Betty Ann
Wise, Dorthy Hebble
Yates, Evelyn Marie

Durham, N. C.
Hubert, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Moncks Corner, S. C.
Durham, N. C.
Rockingham, N. C.
Durham, N. C.
Durham, N. C.
Binghamton, N. Y.
Hillsboro, N. C.
Rockford, Ala.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.
Durham, N. C.

# THE GRADUATE SCHOOL OF ARTS AND SCIENCES ACADEMIC YEAR, 1945-46 

Adams, Anne Shand Columbia, S. C.
A.B. (University of South Carolina), Bacteriology, Zoology.

Alpert, Eugene Oliver Brooklyn, N. Y.
A.B. (Duke University), Economics, Mathematics.

Anderson, Ernest Coleman Lenoir, N. C.
A.B. (Duke University), Education, Political Science.

Anderson, Wilber Kenneth Yanceyville, N. C.
A.B. (Asbury College); B.D. (Duke University), Religion, Sociology.

Anglin, Milton New York, N. Y.
B.S. (College of the City of New York), Psychology, Sociology.

Austin, Don Charlton
A.B. (Wheaton College), Sociology, History.

Auxier, Charles Carson
Roseboro, N. C.

Á.B. (Berea College), Economics, Political Science.
Ballard, Grady Lee
A.B. (Howard College), Education.

Barbee, John Martin Charlotte, N. C. A.B. (Bob Jones College), Philosophy, Psychology, Political Science.
*Barbour, Ian Graeme Cincinnati, Ohio
A.B. (Swarthmore College), Physics, Chemistry.

Barnes, George Hector Corvallis, Ore.
B.Sc.F. (University of Washington) ; M.S. (University of California), Forestry, Economics.
Barnett, Roberta Irene Chevy Chase, Md.
A.B. (Woman's College of The University of North Carolina), Spanish, French.

Baxter, Joseph Ray Newport, Ky.
A.B. (Berea College) ; A.M. (Duke University), History.

Beaman, Mary Elizabeth Sumter, S. C.
A.B. (Winthrop College), Mathematics.
*Bentley, Nancy Joyce
A.B. (Duke University), Botany, Bacteriology.

Berry, Lucia Kendall
B.S. (Tufts College), Education, Psychology.

Birge, William Root Northampton, Mass.
A.B. (Princeton University), Psychology, Sociology.

Blackburn, Lillian Ione Miami, Fla.
B.S. (Duke University), Chemistry, Physics.

Blair, Norman John Lynbrook, N. Y.
Ph.B. (Brown University); A.M. (New York University), Psychology.
*Bloom, Melvin Sigmund Greenville, S. C.
B.S. (Furman University) ; A.M. (Duke University), Chemistry.

Botdorf, Ruth Graybill Harrisburg, Pa. A.B. (Susquehanna University), Chemistry, Physics.

Brandis, Royall Clearfield, Pa.
A.B. (Richmond College), Economics, Political Science.

Braverman, Elizabeth Miriam Parks
Durham, N. C.
A.B. (Grinnel College), English.

Braverman, Howard
Durham, N. C.
A.B. (Brooklyn College); A.M. (Duke University), History.

* Enrolled under special science calendar July 1, 1945-June 30, 1946.

Brewer, Earl David Clarence Bahama, N. C.
B.Ph., B.D. (Emory University), Sociology, Psychology.

Brice, Ashbel Green York, S. C. A.B., A.M. (Columbia University), English.

Brothers, Joseph Grayson A.B. (Duke University), Economics, Sociology.

Brownlee, Wilkiam Hugh Sylvia, Kan. A.B. (Sterling College); Th.B. (Pittsburgh-Xenia Theological Seminary), Religion, Greek, Latin.
Bruffey, Clarence Mason Oak Hill, W. Va. A.B. (Marshall College), Education, Economics.

Bryson, Pauline Pressley Speedwell, N. C. B.S. (Western Carolina Teachers College), Spanish, French.

Calvert, Henry Woodrow Atlanta, Ga.
B.S. (University of South Carolina), Economics.

Cannon, William Maury, Jr. Sylacauga, Ala.
A.B. (Birmingham-Southern College), Psychology, Education.
*Carr, Thomas Deaderick Umatilla, Fla.
B.S., M.S. (University of Florida), Physics.

Carroll, Howard Easton, Md.
A.B. (University of Richmond); B.D. (Duke University), Religion.

Cavin, William Pinkney Spartanburg, S. C.
A.B. (Wofford College), Chemistry, Physics.

Chernuchin, Vivian A.B. (Queens College), Economics, History.

Clark, Ellen Mercer
A.B. (University of Richmond); A.M. (Duke University), Latin, Greek, Spanish.

Clark, Frank Eugene Elizabethton, Tenn.
A.B. (Dartmouth College), Mathematics, Physics.

Clavering, Rose
A.B. (Brooklyn College), English.

Clees, James Cameron Montoursville, Pa.
A.B. (Duke University), English.

Cohen, Eckford Starkville, Miss. B.S. (Mississippi State College); A.M. (Duke University), Mathematics.

Conte, John Peter
Monongahela, Pa . A.B. (Washington and Jefferson College), History, Education.

Coolidge, Cary Nashville, Tenn. A.B. (Blue Mountain College); A.M. (George Peabody College for Teachers), French, Spanish.
Cox, Robert Boyd Johnson City, Tenn. A.B. (University of Tennessee); A.M. (George Peabody College for Teachers), English.
Craven, Clyde Rober Durham, N. C. A.B. (Duke University), English.

Craven, Phoebe Forrestine Keeler Durham, N. C. A.B. (Duke University); A.M. (Boston University), English.

Culbertson, Jack Arthur A.B. (Emory and Henry College), German.

Cummings, Anne Burt Stainback A.B.' (Hollins College), Psychology, Sociology.

Dale, Dorothy Jeanne Murray, Ky. A.B. (Murray-Kentucky State Teachers College), English.

* Enrolled under special science calendar July 1, 1945-June 30, 1946.

Dillingham, William Pyrle Durham, N. C. B.A.E. (University of Florida); M.S. (University of Tennessee), Economics, Political Science.

Doren, Rosalyn Jeanne
New York, N. Y.
A.B. (Brooklyn College), Psychology.

DuBose, Samuel Wilds
Hillsboro, N. C. A.B. (Davidson College) ; B.D. (Union Theological Seminary) ; A.M. (Duke University), Religion.
Dugger, Fowler, Jr. Birmingham, Ala. A.B. (University of Alabama), Political Science, Economics.

Elkins, Elaine Cincinnati, Ohio
A.B. (Wellesley College), Biochemistry, Chemistry, Physics.

Elliot, Flavel Scott
Durham, N. C. A.B. (Dartmouth College); A.M. (University of North Carolina), English.
*Entrekin, William Frank, Jr.
Upper Montclair, N. J.
History, Political Science.
$\dagger$ Field, Frank Henry B.S., A.M. (Duke University), Chemistry.

Fowler, Frederick Lybrand
Durham, N. C.
Kelton, S. C. A.B. (Wofford College), Education, Political Science.

Francis, Charles Arthur
Bethel, N. C.
A.B. (Wake Forest College); B.D. (Crozer Theological Seminary), Religion, Philosophy.
Frey, Ellen Frances
Durham, N. C. A.B. (Barnard College); A.M. (Duke University), English.

Futterman, Yvette
Yonkers, N. Y. B.S.' (Columbia University), Sociology, Economics.

Gale, Walter John Durham, N. C. B.S. (Glassboro State Teachers College), Education, Sociology.

Gavriloff, Gantsho Gantsho Sofia, Bulgaria Polftical Science, History.
Gesling, Martha Myra Lancaster, Ohio A.B. (Ohio Northern University); A.M. (Ohio State University), Education, Psychology.
Gibbons, Jean Worley
Dallas, Texas
A.B. (Texas Technological College), Zoology, Botany.

Ginther, James Edward A.B. (College of Wooster), English.
$\dagger$ Giuliano, Jerry James B.S. (Duke University), Chemistry, Physics.

Good, Warren Richard Reamstown, Pa. B.S. in Ed. (State Teachers College, Millersville, Pennsylvania), Education, Political Science.

Goodwin, Noma Lee Durham, N. C. A.B. (Duke University), English.

Gordon, Hiram Landor Morrilton, Ark. A.B. (University of Wichita), Psychology, Sociology.

Grantham, Raymond Jack Mattoon, Ill. B.Ed. (Eastern Illinois State Teachers College), Chemistry.

Grasty, George Mason Chadron, Neb. A.B. (Washington and Lee University), German.

Grimsley, Corinne Justice Greensboro, N. C.
A.B. (Converse College); A.M. (Columbia University), Psychology.

* Candidate for A.B., Duke University, January, 1946.
$\dagger$ Enrolled under special science calendar July 1, 1945-June 30, 1946.

Hackney, Edward June Durham, N. C.
B.S. (Duke University), Chemistry.

Hahn, Samuel Wilfred
Concord, N. C.
A.B. (Lenoir-Rhyne College); A.M. (Duke University), Mathematics, Philosophy.

Hall, Chester Lee Vidalia, Ga.
A.B. (Mercer University), Education, Sociology.

Hapala, Milan Ernest Brno, Czechoslovakia
A.B. (Beloit College) ; A.M. (University of Nebraska), Political Science, Economics.

Harvin, Harry Lewis, Jr. Manning, S. C.
A.B. (Wofford College), History, Political Science.

Hauptschein, Murray New York, N. Y.
B.S. (The College of the City of New York), Chemistry.

Heisey, Wilbur Lloyd Flint, Mich.
A.B. (Manchester College), History.

Helm, Robert Meredith, Jr. Winston-Salem, N. C.
A.B. (Wake Forest College) ; A.M. (Duke University), Philosophy, Psychology.

Hester, William Atlanta, Ga.
A.B., A.M. (Emory University), Philosophy, Psychology.
*Hill, Althea Frances Willimantic, Conn. Chemistry.
Hinson, Ellie Ford Durham, N. C.
A.B. (East Carolina Teachers College), Education.

Holland, Ruth Brooklyn, N. Y.
A.B. (New York University), Zoology.

Holman, Harriet R. Anderson, S. C. A.B. (Winthrop College); A.M. (University of Michigan), English.

Holton, Jean Ortiz Morris
A.B. (Millsaps College), Zoology.

Holton, Samuel Melanchthon Durham, N. C.
A.B. (Duke University), Education, Political Science.

Holub, Fred Franklin
Cleveland, Ohio
B.S. (Adelbert College of Western Reserve University), Chemistry, Physics.

Hopkins, James Franklin New Haven, Conn. A.B. (University of Mississippi); A.M. (University of Kentucky), History.

Horn, Edward Charles Durham, N. C. B.S. (Trinity College, Hartford); Ph.D. (Princeton University), Zoology.

Hornaday, John Albert Henderson, N. C. A.B. (Duke University), Psychology, Education, Sociology.

Horner, Jack Memphis, Tenn.
A.B. (University of Tennessee), Education, Psychology.

Howard, Frederick Kennedy Jacksonville, Fla.
B.S. (Purdue University), History, Political Science.

Howell. Wilson McDaniel Albertville, Ala.
A.B. (Birmingham-Southern College), History, Political Science.

Huffman, Weddie Wilson Thomasville, N. C.
A.B. (Duke University), History, Political Science.

Inman, Frank Edwin
Augusta, Ga.
B.S. (Presbyterian College), Education, Psychology.

Jenkins, Wilmer Mitchell
B.S. (Wake Forest College), Education.

Jenness, David Montgomery
Durham, N. C.
A.B. (Furman University), History, Political Science.
*Candidate for the B.S., Duke University, May, 1946.

Johnson, Natalie Kristina
A.B. (Duke University), Spanish, French.

Jones, William Purcell
B.A. (Hampden-Sydney College), Religion.

Jordan, Donald Samson.
A.B. (Princeton University), Political Science, History.

Jordan, Grace Woodward Welch
A.B. (Duke University), Sociology.

Kantor, Simon
B.S. (College of the City of New York), Chemistry.

Kennedy, John Wesley Danville, Va.
A.B. (Duke University), Economics, Political Science.

Kew, John Kendall Salisbury, N. C.
B.S. (University of New Hampshire), Psychology, Sociology, Education.
*Kingsbury, Ralph Norman
B.S. (Northeastern University), Chemistry.

Kingston, Marion Josephine Melrose, Mass. A.B. (Mount Holyoke College), English.

Kirwan, Albert Dennis
A.B. (University of Kentucky); LL.B. (Jefferson School of Law); A.M (University of Louisville), History.
Knox, Norman Davis Durham, N. C. A.B. (Swarthmore College), English.

Kozlowski, Theodore Thomas Buffalo, N. Y.
B.S. (Syracuse University), Forestry.

Laidlaw, George Norman Sackville, N. B., Canada
B.A. (Mount Allison University) ; B.A., M.A. (Oxford University), French.

Lawton, Sarah Lucile Orlando, Fla.
A.B. (Florida State College for Women), English.
*Levitas, Nora Brooklyn, N. Y.
A.B. (Brooklyn College), Biochemistry, Chemistry, Zoology.

Lewis, Frank Bell Maxwelton, W. Va.
A.B., A.M. (Washington and Lee University); B.D., Th.M.' (Union Theological Seminary), Religion.
Linschitz, Henry New York, N. Y.
B.S. (College of the City of New York); A.M. (Duke University), Chemistry.

Livingston, Robert Blair Lynn, Mass.
A.B. (Colorado College) ; A.M. (Duke University), Botany, Forestry.

Logan, Samuel Frank
A.B. (Wofford College), History, Sociology.

Lugn, Alvin Leonard, Jr.
B.S. (U. S. Naval Academy), Mathematics.

MacIntosh, Fred Henry Clemson, S. C.
A.B. in Ed. (University of South Carolina); A.M. (Duke University), English.

McAdams, Laura Jean Due West, S. C.
A.B. (Erskine College); A.M. (University of South Carolina), French, Spanish.
$\dagger$ McCaskill, Jean Miami, Fla.
Botany.
McConnell, Sam Perry Kingsport, Tenn.
B.S. (East Tennessee State College), Education, Sociology.

McGee, Charles McKay, Jr. Greenville, S. C.
A.B. (Furman University); A.M. (Duke University), English.

* Enrolled under special science calendar July 1, 1945-June 30, 1946.
$\dagger$ Candidate for the B.S., Duke University, May, 1946.

McGriff, Mary Emily Birmingham, Ala.
A.B. (Duke University), History.

McKenzie, Emory Jariel A.B. (Ottawa University), English.

McLain, Robert Wayne A.B. (Berea College) ; S.T.B. (Boston University School of Theology), Religiow.
*McMahan, Betty Anne Psychology, Education.
Malone, Thomas Patrick A.B. (Duke University), Sociology.
$\dagger$ Manes, Milton Durham, N. C. B.S. (College of the City of New York), Chemistry.

Matte, Lorenzo Quebec City, Canada B.A. (Laval Université); M.F. (Duke University), Forestry.

Meader, Kenneth Randall A.B. (Swarthmore College), Sociology.
$\dagger$ Meserve, Bruce Elwyn Portland, Maine A.B. (Bates College) ; A.M. (Duke University), Mathematics, Physics.

Miller, Espy Wallace Mill Creek, W. Va. A.B. (Concord College); A.M. (Northwestern University), English.

Moore, Benjamin Franklin Oxford, N. C. A.B. (University of Georgia) ; B.D. (Columbia Theological Seminary), Religion.

Moore, Wilson Wallace
Greensboro, N. C.
A.B., A.M. (Davidson College); Th.M. (Columbia Theological Seminary); B.D. (Union Theological Seminary), Psychology, Sociology.
Morin, Manuel Garcia Rio Piedras, Puerto Rico B.S. (University of Puerto Rico) ; A.M. (Columbia University), Chemistry.

Moylan, John Dudley A.B. (Duke University), English.

Muldrow, Mary Frances
Miami, Fla.
Milledgeville, Ga. A.B. (Georgia State College for Women), French, Spanish.

Mulnix, Alice Adeline
Burnsville, W. Va.
A.B. (Glenville State College), Education, English.

Munger, Bernard Vernon
Washington, D. C.
A.B. (Washburn Municipal University); B.D. (Chicago Theological Seminary), Religion, Philosophy, Sociology.
Nash, Ralph Lee
A.B. (Duke University), English, History.

Newberry, Eugene Wilson New Boston, Ohio A.B. (Denison University), Religion, Philosophy.

Ohlson, John Algoth Durham, N. C. B.S., A.M. (Northwestern University), Psychology, Education.

Oldham, Anderson Moore Durham, N. C. B.S. (North Carolina State College), Biochemistry, Chemistry, Anatomy.

Oliver, Edgar Joseph
Savannah, Ga.
A.B. (Duke University), Psychology, Education, Sociology.

Osment, Cecile Daniel
Durham, N. C.
A.B. (Bessie Tift College) ; A.M. (George Peabody College for Teachers), History, Education.

Overcash, Carol
Kannapolis, N. C.
A.B. (Woman's College of The University of North Carolina), Spanish, English.

- Candidate for A.B., Duke University, May, 1946.
$\dagger$ Enrolled under special science calendar July 1, 1945-June 30, 1946.
*Parker, Mary Ellen Roanoke, Va.
A.B. (Randolph-Macon Woman's College), Chemistry.

Patton, Dorothy Jean Beaver Falls, Pa.
A.B. (Geneva College), English.

Perry, Percival Chesterfield, S. C.
A.B. (Wake Forest College); A.M. (Rutgers University), History.

Peters, Edith Joan Erickson Rahway, N. J.
A.B. (New Jersey College for Women), Economics, History.

Peters, Frank Anthony Tuscaloosa, Ala. A.B. (University of Alabama), Political Science, Economics.

Pope, Hilda Persons Griffin, Ga.
A.B. (Georgia State College for Women), Bacteriology, Zoology, Botany.

Powell, Woodrow Wilson
Register, Ga.
B.S. (South Georgia Teachers College) ; A.M. (Duke University), English, History.

Purcell, Charles William, Jr. Huntington, W. Va.
A.B. (Marshall College), History, Political Science.

Purcell, Eugene George, Jr.
Burlington, N. C.
A.B. (Duke University), Philosophy.

Purcell, James Slicer, Jr. Lakeland, Fla.
A.B. (John B. Stetson University) ; A.M. (Duke University), English.

Ramsey, Benjamin Sterling Martinsville, Va.
A.B. (Duke University), Education, Sociology.

Rapp, Marvin August Buffalo, N. Y.
A.B. (Colgate University); A.M. (Duke University), History.

Reynolds, George Arthur West Palm Beach, Fla.
B.S. (University of Florida), Chemistry, Anatomy.
*Reynolds, Thomas Davies Sylva, N. C.
A.B., A.M. (Duke University), Mathematics, Physics.

Rhodes, Daniel Durham Rocky Point, N. C.
A.B. (Davidson College); B.D. (Louisville Presbyterian Theological Seminary), Religion, Sociology.

Rhodes, Ethel Irene Truscott
Rocky Point, N. C.
A.B. (Coker College), Religion.
*Ringler, Betty Irene St. Petersburg, Fla.
B.S. (Florida State College for Women), Chemistry.

Rivers, Dorris Wilmer Philadelphia, Miss.
B.S. (Mississippi Southern College), Education, Sociology.

Robinson, Jean Eleanor South Orange, N. J.
A.B. (Adelphi College), Biochemistry, Chemistry, Zoology.

Rogers, Dorothy Ashburn, Ga.
A.B. in Ed., A.M. (University of Georgia), Education. Sociology.

Rogers, Hollis Jelton
Stearns, Ky.
B.S. (Murray State Teachers College) ; M.S. (University of Kentucky), Botany.

Roney, William Hamilton New Bern, N. C.
A.B. (Occidental College) ; A.M. (University of Michigan), Sociology.

Rosen, Fred
Irvington, N. J.
B.S. (University of Wisconsin), Biochemistry, Chemistry.

Rudin, Vera
B.S. (Sterling College), Chemistry.

Russell, Mattie Mars Hill, N. C.
B.A., A.M. (University of Mississippi), History.

- Enrolled under special science calendar July 1, 1945-June 30, 1946.

Ryan, Donna Hazel Elkins, W. Va.
A.B. (West Virginia Wesleyan College), Education, Psychology.

Sales, Reames Hawthorne
Forrest City, Ark.
A.B. (Hendrix College), Religion, Greek, Latin.

Saltzman, Irving Jackson
Dorchester, Mass.
B.S. (Massachusetts State College); A.M. (Duke University), Psychology, Education.
Sample, Kathleen
A.B. (John B. Stetson University), Botany.

Sanderson, James Joseph Becket, Mass.
B.S. (Massachusetts State College); M.S. (University of Connecticut), Chemistry.

Saperstein, Passie Othello
A.B. (Duke University), Chemistry.

Sasser, Carl Cairo, Ga.
A.B. in Ed. (University of Georgia), Education, Sociology.

Schaedler, Frances Ann Craghead
Lynchburg, Va.
A.B. (Randolph-Macon Woman's College) ; A.M. (Duke University), Latin.

Schaedler, Louis Calvern Racine, Wis.
A.B. (Wabash College) ; A.M. (Duke University), English, Religion.

Schafer, Thomas Anton East Liverpool, Ohio
A.B. (Maryville College); B.D. (Louisville Presbyterian Theological Seminary), Religion.
*Scheraga, Harold Abraham Durham, N. C. B.S. (College of the City of New York) ; A.M. (Duke University), Chemistry.

Scherer, Wallace Brown
B.S. (Davidson College), Psychology, Sociology.

Schulze, Frances Elaine Pelham Manor, N. Y.
A.b. (Marshall College), Psychology, Philosophy, Education.

Seavers, Gilmore Brechbill Carlisle, Pa.
B.S. in Ed. (Shippensburg State Teachers College), Education, Psychology.

Segal, Solomon
Scranton, Pa.
B.A. (New York University) ; B.S. (The Pennsylvania State College), Biochemistry. Chemistry, Physics.
Sessoms, Louise Elizabeth Fuquay Springs, N. C.
A.B. (Duke University), Psychology.

Shirey, William Arthur Durham, N. C.
A.B. (DePauw University); A.M. (Indiana University), Sociology.
*Shivers, Joseph Clois, Jr.
Riverton, N. J.
B.S., A.M. (Duke University), Chemistry.

Silk, Leonard Solomon
A.B. (University of Wisconsin), Economics.

Simcoe, Lucille Mathews, Va.
A.B. (Randolph-Macon Woman's College); B.S. (Columbia University), Latin.

Smith, Alexander Goudy
B.S. (Massachusetts Institute of Technology), Physics.

Sommer, Esther Lucille Peoria, Ill.
A.B. (McMurray College), History, Political Science.

Sowder, Ellie Mae
A.B. (University of Chattanooga), Mathematics.

Spear, Richard Southall
A.B. (Catawba College), Education.
*Enrolled under special science calendar July 1, 1945-June 30, 1946.

Spraker, James Henry Emory, Va.
B.S. (Emory and Henry College), Education.

Strain, Sara Bob
A.B. (Shorter College), Botany.

Strowd, Martha Ann
A.B. (Woman's College of The University of North Carolina), English.

Sullivan, Dallas Earle Parkersburg, W. Va. A.B. (Glenville State College), Education, Sociology.

Sutcliffe, William Humphrey, Jr. New York, N. Y. A.B. (Emory University), Zoology, Botany.

Swamer, Frederic Wurl
Appleton, Wis.
B.A. (Lawrence College) ; M.A. (University of Wisconsin), Chemistry.

Swanson, Louis Earl St. Paul, Minn.
B.A. (Hamline University), Economics.

Thomas, Mary Olive Auburn, Ala.
B.A. (Agnes Scott College); A.M. (University of North Carolina), English, Philosophy.
*Thomason, Jane Taylor Roanoke Rapids, N. C. English.
$\dagger$ Thompson, Donald Frederick Lynn, Mass. B.S., M.S. (Tufts College), Chemistry.

Todd, Richard Cecil
Lancaster, Pa.
B.S. in Ed. (Millersville State Teachers College); M.Ed. (Pennsylvania State College), History.
Tomlinson, Muriel Dorothy Manchester, Conn. A.B. (Bates College) ; A.M. (Duke University), French.
$\dagger$ Tope, Charles Wilders
A.B. (Duke University); Physics.

Topper, Pearl
A.B. (Marshall College), History, English.

Troutman, William Fife, Jr. Asheville, N. C. B.S. in Ed. (Western Carolina Teachers College), Political Science, History.

Vick, Thomas Marvin, Jr. Bahama, N. C. A.B. (Southern Methodist University); B.D. (Duke University), Religion.
$\dagger$ Vingiello, Frank Anthony
Brooklyn, N. Y. B.S. (Polytechnic Institute of Brooklyn), Chemistry.

Volkin, Elliot Mt. Pleasant, Pa. B.S. (Pennsylvania State College); A.M. (Duke University), Biochemistry.
$\dagger$ Walker, Howard George, Jr. B.S. (Duke University), Chemistry.

Ward, Virgil Scott A.B. (Wofford College), Education.

Weathers, Willie True
Aylett, Va. A.B. (Randolph-Macon Woman's College); A.M. (University of Chicago), English.

Webb, William Edward S. Boston, Va. B.A. (Hampden-Sydney College), History, Political Science.
*Weiss, Martin Joseph
B.A. (New York University), Chemistry.

Weith, Archie James, Jr. A.B., A.M. (Duke University), Chemistry.

* Candidate for the A.B., Woman's College of The University of North Carolina, June, 1946.
$\dagger$ Enrolled under special science calendar July 1, 1945-June 30, 1946.
Wellborn, Mary Moss Starkville, Miss.A.B. (Mississippi State College for Women), English.
White, Helen Louise Arlington, Va.A.B. (University of North Carolina), Mathematics, Physics.
*Wicker, Gloria Louise Greenwood, S. C.B.S. (Lander College), Chemistry, Physics.
Wiggins, Pauline EvelynA.B. (University of Chattanooga), English.
Williams, Hatcher Crenshaw Oxford, N. C.
A.B. (Duke University), English.
Williams, Louis Gressett Milton, W. Va.A.B. (Marshall College); A.M. (Duke University), Botany, Zoology.
Wilson, Ronald Sanders Birmingham, Ala. A.B. (Birmingham-Southern College), Education, Sociology.
Wilson, Ulrey Kaulbach Durham, N. C.A.B. (University of Chattanooga) ; A.M. (Duke University), Education, Psychology.
Wolford, Richard WilsonB.S. (Florida Southern College), Chemistry.
Wood, Harry DuPrey, Jr. Angier, N. C.A.B. (Wake Forest College); Th.M. (Southern Baptist Theological Seminary),Religion.
Wood, Virginia Loraine Roanoke, Va.
A.B. (Roanoke College); A.M. (Duke University), Political Science.
*Yost, Robert Stanley Pottsville, Pa .B.S. (Pennsylvania State College), Chemistry.
Young, Franklin Woodrow Lima, Ohio
A.B. (Dartmouth College); B.D. (Crozer Theological Seminary), Religion.
Young, Milla Elizabeth ..... Lancaster, Ohio
A.B. (Hiram College), French, Spanish.
Zimmerberg, Helen Yarmush Raleigh, N. C.
A.B. (Brooklyn College), Biochemistry, Chemistry.* Enrolled under special science calendar July 1, 1945-June 30, 1946.


## SUMMER OF 1945

## Pre-Session Beginning May 29

Cline, Kitty Ida
A.B. (Greensboro College), Religion.

Conley, Katie Lee Funderburk Charlotte, N. C.
B.S. (Appalachian State Teachers College), Education.

Failing, George Edgar Central, S. C.
A.B. (Houghton College), Religion.

Gibson, Walter Van Buren East Tallassee, Ala.
B.S. (Troy State Teachers College), Education, Economics.

Gray, George Marion Fair Play, S. C.
A.B. (Erskine College), Education.

Hammock, Ivy Coil
B.A.E. (University of Florida), Education.

Jakes, Frank Henry, Jr. Newark, Ohio
A.B. (Otterbein College), B.E. (University of Cincinnati).

Leete, Mortimer U.
A.B., A.M. (Marshall College), Education.

McClain, Howard G. Sherman, Texas
A.B. (Vanderbilt University), B.D. (Southern Baptist Theological Seminary). Religion.
McDonald, Alma Ione Clinton, Miss.
A.B. (Mississippi College), Education.

Mabry, Reginald Eakin Donalds, S. C.
A.B. (Erskine College), Education.

Nichols, Hugh Lester
Durham, N. C.
A.B. (Duke University), Th.M. (Southern Baptist Theological Seminary), Religion.

Salomon, Ann Douglas
A.B. (Swarthmore College), Psychology.

Saltzman, Irving J.
B.S. (Massachusetts State College), Psychology.

Wilson, Robert Scth
B.S. (The College of Wooster), Education.

New London, Conn.
Dorchester, Mass.
Ashtabula, Ohio

## SUMMER OF 1945

## First Term, June 19-July 30

Anderson, Ruby Jane
Caneyville, Ky.
A.B. (Western Kentucky State Teachers College), History.

Arbogast, Grace Kramer Cass, W. Va.
A.B. (Shepherd State Teachers College), Sociology.

Arbogast, James Kermit Cass, W. Va. A.B. (Shepherd State Teachers College), Education.

Ballance, Ethelynde Mann Lake Landing, N. C. A.B. (Eastern Carolina Teachers College), English.

Barber, Mary Wilmoth Raleigh, N. C.
A.B. (Woman's College of the University of North Carolina), Spanish.

Barnett, Roberta Irene
Chevy Chase, Md.
A.B. (Woman's College of the University of North Carolina), Spanish.

Bayless, Flora Johnson Dunbar, W. Va. A.B. (West Virginia Institute of Technology), Education.

Beale, Alvin Francis A.B. (William and Mary College), Education.

Richmond, Va.

Bell, Mary Catherine Macon, Ga.
A.B. (University of Richmond), A.M. (Duke University), Mathematics.

Bennett, Mary Hclen
Lancaster, S. C.
A.B. (Coker College), Education.

Bitner, Harold Miller Williamson, Pa.
B.S. (Shippersburg State Teachers College), Education, Psychology.

Blakeslee, Edward Ray, Jr. Wilmington, N. C.
B.S. (East Stroudsburg State Teachers College), Education.

Blakeslee, Verna Treat Wilmington, N. C.
B.S. (East Stroudsburg State Teachers College), Education.

Blessing, Evelyn Elaine Cumberland, Ky.
A.B. (Georgetown College), Education, Sociology.

Blank, Olive Greendwalt Huntington, W. Va.
A.B. (Marshall College), English.

Brokaw, Ruth Wilmina E. Liverpool, Ohio A.B. (Marietta College), Mathematics.

Brooks, Onnie Estus Baileysville, W. Va.
A.B. (Marshall College), M.Ed. (Duke University), Education.

Brown, Jonas William
Clemson, S. C.
B.S. (North Carolina State College), Mathematics.

Brown, Louis Alexander Statesville, N. C.
A.B., A.M. (University of North Carolina), History.

Browning, Lonvilie Eptan Logan, W. Va. B.S., A.S. (Illinois Institute of Technology), Education, Sociology.

Bryant, Samuel Roy Meadows of Dan, Va.
A.B. (Wake Forest College), Education.

Bryson, Pauline Pressley Speedwell, N. C.
B.S. (Western Carolina Teachers College), Spanish.

Buchanan, Edith
Cullowhee, N. C.
A.B. (Meredith College), English.

Burch, Eula Frances
A.B. (Limestone College), Mathematics.

Burts, Robert Milton, Jr.
A.B. (Berry College), History.

Calvert, Henry Woodrow Atlanta, Ga.
B.S. (University of South Carolina), Economics. -

Capua, Julius Pati, II. Muskegan, Mich.
A.B. (Augustana College), Political Science.

Cardwell, Annie Irene Lynchburg Va.
B.S. (Radford State Teachers College), Education.

Carroll, Anne Myers Marietta, Pa.
B.S. in Ed. (Shippensburg State Teachers College), Education.

Carroll, Thelma Crusey Harrisburg, Pa. B.S. in Ed. (Shippensburg State Teachers College), Education.

Cauler, Ethel
Lancaster, Pa.
B.S. in Ed. (Millersville State Teachers College), Education.

Chatfield, Margaret
A.B. (Duke University), Education.

Chew, Jeanne Maurer
A.B. (Pennsylvania State College), Spanish.

Christopher, Mary Chambers
A.B. (Furman University), English.

High Point, N. C.
Pittsburgh, Pa.
Greenville, S. C.

Cline, Kitty Ida Durham, N. C.
A.B. (Greensboro College), Religion.

Combs, James Howard
Woodlawn, Va.
B.S. (Appalachian State Teachers College), Education.

Conley, Katie Lee Funderburk Charlotte, N. C.
B.S. (Appalachian State Teachers College), Education.

Coolidge, Cary Nashville, Tenn.
A.B. (Blue Mountain College), A.M. (George Peabody College for Teachers), French, Spanish.
Craig, Miriam Columbus, Ga. B.S. in Ed. (Georgia State College for Women), Education.

Craig, Sara Patton Lancaster, S. C.
A.B. (Winthrop College), Education.

Craven, Mary Lucile High Point, N. C.
A.B. (High Point College), English, Education.

Crozier, Rachel Flagg West Palm Beach, Fla.
B.S.E. (University of Arkansas), A.M. (University of Florida), Education.

Cummings, Anne Stainback Pittsburgh, Pa.
A.B. (Hollins College), Psychology, Education.

Curry, Lois Mae S. Charleston, W. Va.
A.B. (Westminster College), Education.

Cushing, Mary Louise
Jackson Heights, N. Y.
B.S. (Jamaica Training School for Teachers), Education.

Deen, Miriam Virginia Lancaster, Pa.
B.S. in Ed. (Millersville State Teachers College), Education.

Dickinson, Elmer Gartin Kermit, W. Va.
A.B. (Morris Harvey College), History, Political Science.

Dillingham, William Pyrle Durham, N. C. B.A.E. (University of Florida), M.S. (University of Tennessee), Economics.

Eichelberger, Pearl Virginia Greensboro, N. C. A.B. (High Point College), A.M. (Mercer University), Religion, Education.

Elliott, Edith Minerva Canebrake, W. Va.
A.B. (Concord College), Mathematics.

Entzminger, Harriet Isabel Blythewood, S. C. A.B. (Columbia College), English.

Failing, George Edgar Central, S. C.
A.B. (Houghton College), Religion.

Fields, Riley Clinton Carthage, N. C.
A.B. (Duke University), Education.

Flaherty, Anne Grace Pittston, Pa. B.S. in Ed. (Mansfield State Teachers College), English, Education.

Fouch, Ann
A.B. (Duke University), Zoology.

Frazee, Lora Milier
Thomaston, Ga.
B.S. in Ed. (Georgia State College for Women), Education, Sociology.

Galloway, Myrtle Thelma Rossman, N. C.
B.S. in Ed. (Western Carolina Teachers College), Education.

Garland, James Louis
B.S. in Ed. (Union College), Education.

Garrison, Evelyn Crutchfield
A.B. (Meredith College), Education.

Gibson, Walter Van Buren
East Tallassee, Ala.
B.S. in Ed. (Troy State Teachers College), Education, Economics.

Goettman, Alice Mae New Brighton, Pa.
A.B. (Marion College), History, Religion.

Gregory, Lucille
A.B. (Winthrop College), History.

Haile, Madeline Louise
A.B. (Winthrop College), Education.

Hammock, Ivy Leona Coil
B.A.E. (University of Florida), Education.

Harrell, Margaret Elizabeth
A.B. (Wesleyan College), Religion, Education.

Harris, Emma Frances
A.B. (Blue Mountain College), Education.

Harris, Yetull Yeamans
A.B. (King College), History.

Hartman, Inez Rebecca
Lancaster, S. C.
Heath Springs, S. C.
Largo, Fla.
Cordele, Ga.
Enid, Miss.
Honolulu, T. H.
Hixson, Tenn.
A.B. (University of Chattanooga), A.M. (Duke University), Spanish.

Haugh, Florence Irma Pittsburgh, Pa.
A.B. (Geneva College), Spanish.

Heisey, Wilbur Lioyd Flint, Mich.
A.B. (Manchester College), History.

Hill, D. Beatrice Rutherfordton, N. C.
B.S. (Asheville College), Education.

Hill, Ione Smith
B.L. (Converse College), Education, Sociology.

Hinchman, Laura Caryl A. B. (Concord College), English.

Hinton, Elsie Buchanan Meridian, Miss.
A.B. (Mississippi State College for Women), Education.

Holton, Jean Otiz Morris $\quad$ Yazoo City, Miss.
A.B. (Millsaps College), Zoology.

Hoover, Edna May Sharpsburg, Md.
A.B. (Hood College), English, History.

Hornaday, John Albert
A.B. (Duke University), Psychology.

Horrell, Annie Hardin Tampa, Fla.
A.B. (Winthrop College), Education.

Jakes, Frank Henry, Jr.
Newark, Ohio
A.B. (Otterbein College), B.E. (University of Cincınnati), Education.

Johnson, Natalie Kristina Miami, Fla,
A.B. (Duke University), Spanish.

Johnson, Virginia Elizabeth
B.S. (West Virginia University), Education.

Johnston, Mildred Hearne Oakvale, W. Va.
A.B. (Concord State Teachers College), Education, Sociology.

Kelly, Esther Evelyn
A.B. (Berry College), English.

Kelly, Kathleen Eliza
A.B. (Ohio University), Education.

Kern, Mary Katharine Winchester, Va.
A.B. (Goucher College), English.

Kirwan, Albert Dennis Lexington, Ky
A.B. (University of Kentucky), A.M. (University of Louisville), LL.B. (Jefferson School of Law), History.
Kreps, Clifton Holland, Jr. Norfolk, Va.A.B. (The College of William and Mary), A.M. (University of North Carolina),Economics.
Kreps, Clara Juanita Morris

Norfolk, Va.
A.B. (Berea College), A.M. (Duke University), Economics.
Krummel, Mary Eleanor Durham, N. C.A.B. (Duke University), B.S. (Institute of Musical Art), French.
Lawrimore, Clyo Elizabeth Hemingway, S. C. A.B. (Winthrop College), History.
Leete, Mortimer Uriel A.B., A.M. (Marshall College), Education.
Lincoln, Cora Louise Columbus, Ohio
A.B. (Capital University), A.M. (University of Michigan), Education.
Loveless, Ruth Mount Dora, Fla.
A.B. (Florida State College for Women), English.
McAliley, William SamuelA.B. (Erskine College), Education.
McClain, Howard G. Sherman, TexasChester, S. C.A.B. (Vanderbilt University), B.D. (Southern
Religion.
McDonald, Almo Ione
A.B. (Mississippi College), Education.
McGeary, Elizabeth Jane Leechburg, Pa.B.S. in Ed. (Indiana State Teachers College), Education.
MacKorell, Mary Bowers Charlotte, N. C.
A.B. (Randolph-Macon Woman's College), Education.
McMahan, Betty Anne Mocksville, N. C.
A.B. (Duke, to be conferred May, 1946), Phychology, Education.
Mackay, Pauline Peeler Orangeburg, S. C.A.B. (Winthrop College), Education, Sociology.
Mahon, Mary Elizabeth Laurens, S. C.
A.B. (Winthrop College), Spanish.
Marr, Claude Canie Asheville, N. C.
A.B. (Duke University), Education.
Martin, Howell Calhoun Gainesville, Ga.
B.S. (Georgia Teachers College), Education, Sociology.
Maxey, Sally Bessie ..... Vinton, Va.B.S. (Radford College), History.
May, Gertrude Kathryn Lancaster, Pa.
B.S. in Ed. (Millersville State Teachers College), Education.
Meisenhelder, Nina May Lancaster, Pa.
B.S. in Ed. (Millersville State Teachers College), Education.
Mitchell, Frank Phipps Salisbury, Md.
A.B. (Western Maryland College), English.
Montgomery, Clyde Raymond Lewisburg, W. Va.A.B. (Salem College), M.S. (West Virginia University), Education.
Morris, Paul Tidwell Chattanooga, Tenn.
B.S. (Memphis State College), Education, Sociology.
Moser, Harold Eugene Frederick, Md.
B.S. (Johns Hopkins), A.M. (Teachers College of Columbia Úniversity), Education.

Mote, Clara Lucilie
A.B. (Earlham College), Education.

Muldrow, Mary Frances
St. Petersburg, Fla.
Milledgeville, Ga.
A.B. (Georgia State College for Women), French, Spanish.

Nau, Walter Theodore Lexington, N. C.
A.B. (Guilford College), A.M. (Duke University), B.D. (Concordia Theological Seminary), French, Spanish.
Nichols, Hugh Lester Durham, N. C.
A.B. (Duke University), Th.M. (Southern Baptist Theological Seminary), Religion.

Oates. Alyce Ruth Bessemer City, N. C.
B.S. (Appalachian State Teachers College), Education.

Oldham, Anderson Moore Durham, N. C.
B.S. (North Carolina State College), Bio-Chemistry.

Overcash, Carol Kannapolis, N. C.
A.B. (Woman's College of the University of North Carolina), Spanish.

Paden, Erma Elizabeth Lowellville, Ohio
A.B. (Westminster College), Education.

Payne, Floyd Merle
B.S. (Florida Southern College), Education.

Pettenati, Yolanda Bona Crosby, Pa.
B.S. in Ed. (Lock Haven State Teachers College), Education.

Pitzer, Gladys Estelle Martinsburg, W. Va.
A.B. in Elem. Ed. (Shepherd College), Education.

Poggy, Violette Elizabeth Millersville, Pa.
B.S. in Ed. (Millersville State Teachers College), Education.

Powell, Lillie Mae Kingsport, Tenn.
A.B. (Carson-Newman College), History, Political Science.

Price, Mary Belie Madison, Conn.
A.B. (Woman's College of the University of North Carolina), Spanish.

Proufoot, Mary Grace Philippi, W. Va.
A.B. (Alderson-Broaddus College), History, Sociology, Education.

Ramsey, Benjamit Sterling Martinsville, Va.
A.B. (Duke University), Education.

Risner, Benjamin, Jr. Moores Creek, Ky.
A.B. (Union College), History.

Robinson, Margaret Eula Lancaster, S. C.
A.B. (Erskine College), English.

Rogers, Dorothy Ashburn, Ga.
A.B., A.M. (University of Georgia), Education, Sociology.

Rogers, Greene Titus
Mamers, N. C.
A.B. (Wake Forest College), Education, History.

Rogolino, Mary Theresa St. Augustine, Fla. A.B. (Florida State College for Women), Spanish.

Rosinski, Sophie Anne Erie, Pa. A.B. (Villa Maria College), Education, Political Scicnce.

Salomon, Ann Douglass
A.B. (Swarthmore College), Psychology.

Saltzınan, Irving Jackson
B.S. (Massachusetts State College), Psychology.

Scherer, Betty Roszhart
Ottawa, Ill.
B.E. (National College of Education), Education, Sociology.

Schroeder, Helen Frank $\quad$ Tampa, Fla.
A.B. (Randolph-Macon Woman's College), English, Education.

Schulze, Frances Elaine
A.B. (Marshall College), Psychology, Education.

Scott, Etta Amanda
Fairmont, Minn.
A.B. (Macalester College), A.M. (University of Minnesota), Spanish.

Scott, Sammy Alan Tazewell, Va. B.S. in Ed. (Farmville State Teachers College), Edication, Mathematics.

Seales, Keith Wimmer
B.S. (University of Illinois), Education.

Shank, Geraldine Cleo Schuylkill Haven, Pa.
B.S. in Ed. (Shippensburg State Teachers College), Education.

Shankle, Carl Edward Morganton, N. C.
B.S. (Clarion State Teachers College), Education.

Shelton, Edith Ella Marshall, N. C.
B.S. (Asheville College), Education, Sociology.

Shirey, William Arthur Durham, N. C. A.B. (De Pauw University), A.M. (Indiana University), Sociology.

Sleeman, Mary King
Gaithersburg, Md.
B.S. (Frostburg State Teachers College), Education, Sociology.

Smith, Thelma Lucille Fredonia, Pa.
A.B. (Thiel College), Education.

Sorrell, Juanita
A.B. (Meredith College), History.

Southerland, Myra Azalene
Raleigh, N. C.
Wilmington, N. C.
A.B. (East Carolina Teachers College), Education.

Sowder, Ellie Mae
A.B. (University of Chattanooga), Mathematics.

Stark, Lloyd William Kansas City, Mo.
A.B. (University of Kansas City), Mathematics.

Starr, Homer Pilgrim Burlington, N. C.
A.B. (University of the South), B.D. (Virginia Theoolgical Seminary), Reiigion.

Stevenson, Margaret Virginia Corbin, Ky.
A.B. (Eastern Kentucky State Teachers College), History, English.

Storch, Margaret Rees Allentown, Pa.
A.B. (Cedar Crest College), Sociology, Religion.

Summerall, Mrs. Margaret Elizabeth
Waycross, Ga.
B.S. in Ed. (University of Georgia), Education.

Swan, Pearl Marie Lancaster, Pa.
B.S. (Millersville State Teachers College), Education.

Talley, Joseph Warren
A.B. (Wake Forest College), Education.

Tomkinson, Muriel Dorothy Manchester, Conn.
A.B. (Bates College), A.M. (Duke University), French, Spanish.

Touhsaent, Betty Jane Sell
Ailentown, Pa.
A.B.' (Cedar Crest College), Religion, Sociology.

Trammell, Frances Mauldin (Alabama Polytechnic Institute), English.
Turncr, Anne Clara Albany, Ga.
A.B. (University of Georgia), A.M. (Duke University), Latin, Greek.

Watkins, Pansy Cary
A.B. (Kent State University), Education.

Watson, Charlie Hugh
A.B. (Wofford College), English.

Watson, Thelma Lillian
A.B. (Louisiana State University), Education.

Webb, Genevieve
Ph.B. (University of Wisconsin), Education.
Wiggins, Margaret Lewis
Leavittsburg, Ohio
Cross Anchor, S. C.
Slaughter, La.
Appleton, Wis.
Holly Hill, S. C.
A.B. (Winthrop College), History.

Wiles, Charles Preston Brunswick, Md.
A.B. (Washington College), Sociology.

Wiley, Virginia Lynchburg, Va.
A.B. (Randolph-Macon Woman's College), English.

Wilson, Robert Seth
Ashtabula, Ohio
B.S. (Wooster College), Education.

Wilson, Ulrey Kaulbach
Durham, N. C.
A.B. (University of Chattanooga), Education.

Young, Gladys
A.B. (Louisiana State University), Education.

Zeigler, Frances Chambers Slaughter, La.
B.S. (Florida Southern College), Education, Sociology.

Zekowski, Arlene Jean
Brooklyn, N. Y.
A.B. (Brooklyn College), French, Spanish.

## SUMMER OF 1945 <br> Second Term

Angley, Mary Elizabeth
Lenoir, N. C.
A.B. (Woman's College of the University of North Carolina), Education.

Arbogast, Grace Kramer
Cass, W. Va.
A.B. (Shepherd State Teachers College), Sociology.

Arbogast, James Kermit Cass, W. Va.
A.B. (Shepherd State Teachers College), Education.

Bayless, Flora Johnson Dunbar, W. Va. A.B. (West Virginia Institute of Technology), Education.

Beale, Alvin Francis Richmond, Va.
A.B. (College of William and Mary), Education.

Bitner, Harold Miller Williamson, Pa.
B.S. (Shippensburg State Teachers College), Education, Psychology.

Blakeslee, Edward Ray, Jr. Wilmington, N. C.
B.S. (East Stroudsburg State Teachers College), Education, Sociology.

Blakeslee, Verna Treat Wilmington, N. C.
B.S. (East Stroudsburg State Teachers College), Education.

Blank, Olive Greenawalt
A.B. (Marshall College), English.

Brown, Jonas William Clemson, S. C.
B.S. (North Carolina State College), Mathematics, Education.

Browning, Lonville Eptan Logan, W. Va.
B.S., A.S. (Illinois Institute of Technology), Education, Sociology.

Carroll, Thelma Crusey Harrisburg, Pa. B.S. in Ed. (Shippensburg State Teachers College), Education.

Cole, George Davis, Jr. Newport News, Va. A.B. (Duke University), B.D. (Yale University), Religion.

Combs, James Howard Woodlawn, Va. B.S. (Appalachian State Teachers College), Education.

Conley, Katie Lee Funderburk Charlotte, N. C. B.S. (Appalachian State Teachers College), Education, Sociology.

Craig, Sara Patton A.B. (Winthrop College), English, Education.

Crater, Virginia Loula
Lancaster, S. C.
Gainesville, Fla.
Cummings, Anne Stainback A.B. (Hollins College), Psychology.

Pittsburgh, Pa.

Cushing, Mary Louise Jackson Heights, N. Y. B.Pd. (Jamaica Training School for Teachers), Education.

Entzminger, Harriet Isabel Blythewood, S. C. A.B. (Columbia College), English.

Frazee, Lora Milier Thomaston, Ga.
B.S. in Ed. (Georgia State College for Women), Education.

Garland, James Louis
B.S. in Ed. (Union College), Education.

Garrison, Evelyn Crutchfield
A.B. (Meredith College), Education.

Gesling, Martha Myra Lancaster, Ohio
A.B. (Ohio Northern University), A.M. (Ohio State University), Education,
Psychology.

Hammock, Ivy Leona Coil Largo, Fla.
B.A.E. (University of Florida), Education.

Harrell, Margaret Elizabeth
A.B. (Wesleyan College), Religion, Education.

Harris, Yeuell Yeamans
Cordele, Ga.
A.B. (King College), History.

Herndon, Nannie Mae Durham, N. C.
A.B., A.M. (Duke University), Education.

Hoover, Edna May Sharpsburg, Md.
A.B. (Hood College), English.

Horn, Herman Lionel Mt. Solon, Va.
A.B. (Bridgewater College), A.M. (Duke University), Political Science.

Honnaday, John Albert Henderson, N. C.
A.B. (Duke University), Psychology.

Jakes, Frank Henry, Jr.
Newark, Ohio
A.B. (Otterbein College), B.E. (University of Cincinnati), Education.

Keever, Nancy Catherine
A.B., A.M. (Duke University), Botany.

Kelly, Kathleen Eliza
A.B. (Ohio University), Education.

Kendig, Anna Mae
B.S. in Edae Conestoga, Pa.

Kern, Mary Katharine
A.B. (Goucher College), English.

Kreps, Clara Juanita Morris Norfolk, Va.
A.B. (Berea College), A.M. (Duke University), Economics.

Leake, Marion Clinton, S. C.
A.B. (Presbyterian College), Education.

Leete, Mortimer Uriel Meadow Bridge, W. Va.
A.B., A.M. (Marshall College), Education.

McDonald, Alma Ione Clinton, Miss.
A.B. (Mississippi College), Education.

McMahon, Betty Anne Mocksville, N. C.
A.B.' (Duke University), Psychology.

Mackay, Pauline Peeler
A.B. (Winthrop College), Education.

Marr, Claude Canie Asheville, N. C.
A.B. (Duke University), Education.

Martin, Howell Calhoun Gainesville, Ga.
B.S. (Georgia Teachers College), Education, Sociology.

Montgomery, Clyde Raymond Lewisburg, W. Va. A.B. (Salem College), B.S. (West Virginia University), Elucation.

Morris, Paul Tidwell
Chattanooga, Tenn. B.S. (Memphis State College), Education, Sociology.

Moser, Harold Eugene Frederick, Md. B.S. (Johns Hopkins), A.M. (Teachers College of Columbia University), Education, Psychology.
Mote, Clara Lucille College), Education. St. Petersburg, Fla.
Nau, Walter Theodore Lexington, N. C. A.B. (Guilford College), A.M. (Duke University), B.D. (Concordia Theological Seminary), French.
Oldham, Anderson Moore Durham, N. C.
B.S. (North Carolina State College), Bio-Chemistry.

Payne, Floyd Merle
B.S. (Florida Southern College), Education.

Ramsey, Benjamin Sterling Martinsville, Va. A.B. (Duke University), Education.

Robinson, Margaret Eula Lancaster, S. C. A.B. (Erskine College), English.

Rogers, Greene Titus Mamers, N. C. A.B. (Wake Forest College), Education.

Rosen, Fred Irvington, N. J. B.S. (University of Wisconsin), Bio-Chemistry.

Schulze, Frances Elaine A.b. (Marshall College), Psychology, Education.

Saloman, Ann Douglass
A.B. (Swarthmore College), Psychology.

Seales, Keith Wimmer
B.S. (University of Illinois), Education.

Sharpe, Annie Lane Rocky Ford, Ga. B.S. in Ed. (Georgia State College for Women), Education.

Shelton, Edith Ella B.S. (Asheville College), Education.

Shirey, William Arthur Durhan, N. C. A.B. (DePauw University), A.M. (Indiana University), Sociology.

Southerland, Myra Azalene Wilmington, N. C. A.B. (East Carolina Teachers College), Education.

Stark, Lloyd William Kansas City, Mo. A.B. (University of Kansas City), Mathematics, Education.

Summerall, Margaret Elizabeth B.S. in Ed. (University of Georgia), Education.

Talley, Joseph Warren
A.B. (Wake Forest College), Education.

Trammell, Frances Mauldin Auburn, Ala. B.S., M.S. (Alabama Polytechnic Institute), English.

Watkins, Pansy Cary
A.B. (Hiram College), Education.

Watson, Charlie Hugh A.B. (Wofford College), English.

Wiley, Virginia
Waycross, Ga.
Roanoke Rapids, N. C.

Leavittsburg, Ohio
Cross Anchor, S. C.
A.B. (Randolph-Macon Woman's College), English.

Wiles, Charles Preston
Brunswick, Md. A.B. (Washington College), Sociology.

## THE DIVINITY SCHOOL SENIOR YEAR

Ausley, Paul Kenneth
A.B., Florida Southern College, 1942.

Bailey, Ulysses Grant
A.B., Emory and Henry College, 1943.

Barnes, Edwin Edward
A. Edwin Edward Southwest Missouri State Teachers College, 1943 Licking, Mo.

Beal, Paul R.
A.B., Morris Harvey College, 1942.

Bennett, Luther Alcorn
A.B., Millsaps College, 1943.

Bevan, John Morgan
A.B., Franklin and Marshall College, 1944.

Bowers, Daniel P. Sayler
A.B., Franklin and Marshall College, 1943.

Brinson, John Clinton
A.B., Kentucky Wesleyan, 1942.

Bull, Robert Jehu
A.B., Randolph-Macon College, 1943.

Cagle, John Frank
A.B., High Point College, 1940.

Chrisman, Myron Wayne
A.B., Phillips University, 1946.

Cline, John Maxwell
A.B., Duke University, 1943.

Clouse, Walter Jacob
A.B., Adrian College, 1944.

Cochran, James Edgar
A.B., Wofford College, 1943.

Cofer, Gilbert Francis
A.B., Emory and Henry College, 1943.

Curtis, Myers Blondon
A.B., Southwestern University, 1944.

Dalton, George Willie
A.B., High Point College, 1943.

Dennis, Arthur Williams
A.B., West Virginia Wesleyan College, 1943.

Dennis, Paul Martin
A.B., Wake Forest College, 1943.

Dirks, Dwight Warren
A.B., Dakota Wesleyan University, 1942.

DuBose, Robert Newsom
A.B., Wofford College, 1941.

Durham, Donald William Reidsville, N. C. A.B., Union College, 1943.

Edwards, John Paul
A.B., Duke University, 1944.

Ehlhardt, George Brinkmann
A.B., John B. Stetson University, 1938.

Elrod, Elton Welborn
A.B., Southwestern University, 1943.

Franklinville, N. C.
McComas, W. Va.

Glenville, W. Va.
Fulton, Miss.
St. Plains, Pa.
Waynesboro, Pa.
Owensboro, Ky.
Norfolk, Va.
Durham, N. C.
Lawton, Okla.
Durham, N. C.
Aspinwall, Pa.
Kannapolis, N. C.
Alderson, W. Va.
Rosebud, Tex.
Lewisville, N. C.
Nassawadox, Va.
Mt. Gilead, N. C.
Tyndall, S. D.
Lake View, S. C.

Clinton, N. C.
St. Louis, Mo.
Palestine, Tex.

Ford, Jesse Emerson, Jr.
A.B., Wofford College, 1941.

Fowler, Francis Wiley
B.S., Davidson College, 1944.

Gitlin, Emmanuel Momseyevich
A.B., Texas Christian University, 1944.

Glass, Ernest Wilson
A.B., Wake Forest College, 1944.

Hamlin, Griffith Askew
A.B., Atlantic Christian College, 1939.

Hamm, John Madison
A.B., High Point College, 1942.

Harrell, Leighton Ernest, Jr.
A.B., University of Maryland, 1943.

Hughes, Miles Preston
A.B., University of Alabama, 1943.

Huston, Hollis
A.B., Willamette University, 1944.

Jackson, Lester Polk, Jr.
A.B., Texas College of Mines, 1942.

Johnson, Carl Anderson
A.B., Wofford College, 1943.

Johnson, Jesse Louis, Jr. A.B., High Point College, 1943.

Jordan, John Sharpe
A.B., Duke University, 1940.

McCleskey, Walter Scott
A.B., Emory University, 1942.

McCoy, Charles Sherwood
A.B., University of North Carolina, 1943.

Miller, Gilbert Shelly
A.B., Lenoir-Rhyne College, 1940.

Moore, Jack Warren
A.B., Olivet College, 1934.

Mims, Ulus Eugene
A.B., University of Alabama, 1944.

Morgan, Colby Shannon A.B., Elon College, 1944.

Nicholson, Ralph Herman A.B., Lenoir-Rhyne College, 1937.

Nicks, Robert Lee
A.B., Duke University, 1937.

Oglesby, Glynn Aubrey
A.B., Wofford College, 1943.

Oliphint, Benjamin Ray A.B., Southern Methodist University, 1944.

Peery, John Franklin A.B., Southern Methodist University, 1943.

Perkins, Theodore Edison B.S., Western Carolina Teachers College, 1939.

Petteway, Warren Bernard A.B., W offord College, 1941.

Pfisterer, Fred Russell A.B., Kentucky Wesleyan College, 1943.

Marion, S. C.
Charlotte, N. C.
Chicago, Ill.
Sanford, N. C.
Wilson, N. C.
Tobaccoville, N. C.
Hyattsville, Md.
Gadsden, Ala.
Salem, Ore.
El Paso, Tex.
Elon College, N. C.
Siler City, N. C.
West Jefferson, N. C.
Waycross, Ga.
Laurinburg, N. C.
Greensboro, N. C.
Bennettsville, S. C.
Newville, Ala.
Eagle Springs, N. C.
Statesville, N. C.
Cedar Grove, N. C.
Selma, Ala.
Shreveport, La.
Fort Worth, Tex.
Goldsboro, N. C.
Kinston, N. C.
Louisville, Ky.

Polk, Charles
A.B., Wofford College, 1942.

Purcell, Eugene George, Jr.
A.B., Duke University, 1942.

Regan, James Robert
A.B., Duke University, 1928.

Ridenhour, Henry Isley
A.B., High Point College, 1942.

Risinger, Melvin Smith
A.B., West Virginia Wesleyan College, 1943.

Ritchie, Adam Greig
A.B., Guilford College, 1944.

Rutledge, Thomas Edgar, Jr.
A.B., Trinity University, 1943.

Sales, Reames Hawthorne
A.B., Hendrix College, 1942.

Sampselle, William DeVries
A.B., University of Maryland, 1943.

Shives, Marshall Bell
A.B., Lenoir-Rhyne College, 1945.

Shore, Philip Linus, Jr.
A.B., Duke University, 1935.

Smiley, Donald Gilbert
A.B., Fresno State College, 1943.

Stanfield, Claude Edwin
A.B., Florida Southern College, 1943.

Swink, Ray Franklin
A.B., High Point College, 1944.

Townsend, Harold Lee
A.B., Wake Forest College, 1943.

Tucker, Roger Wilkins
A.B., High Point College, 1943.

Vereen, LaFon Carpenter
B.S., Clemson College, 1941.

Wells, Robert Newton
A.B., Wofford College, 1943.

Young, Aıvin Clyde
A.B., Concord College, 1943.

MIDDLE YEAR
Adams, Gilreath Gilderoy, Jr.
A.B., Duke University, 1945.

Adamson, Malcolm Monroe
A.B., Athens College, 1943.

Allen, Ray Maxwell
A.B., Southwestern College, 1944.

Andes, Mark Winston
A.B., Elon College, 1944.

Barrett, Troy James
A.B., Wofford College, 1944.

Blanton, William Webster
A.B., Davidson College, 1944.

Branton, Theodore Ray
A.B., Centenary College, 1945.

Varnville, S. C.
Erwin, N. C.
Erwin, N. C.
Seagrove, N. C.
Moundsville, W. Va.
Chapel Hill, N. C.
Childress, Tex.
Forrest City, Ark.
Mt. Rainer, Md.
Lincolnton, N. C.
Greensboro, N. C.
Fresno, Calif.
Sarasota, Fla.
Lexington, N. C.
Fayetteville, N. C.
Madison, N. C.
Latta, S. C.
Manning, S. C.
Buffalo, W. Va.

Charlotte, N. C.
Goodwater, Ala.
Memphis, Tenn.
Harrisonburg, Va.
Fayetteville, N. C.
Troutman, N. C.

Vivian, La.

Burgin, William Grady
A.B., Wofford College, 1942.

Carter, John William
A.B., High Point College, 1945.

Coffin, Wayne Wesley
A.B., Southwestern University, 1944.

Combs, William Price
A.B., Duke University, 1944.

Cooley, Arthur Paul
A.B., Hendrix College, 1943.

Crowder, William Rankin
A.B., Guilford College, 1944.

Dail, Francis Roderick
B.S., East Tennessee State College, 1941.

Dunlap, Irwin Grant
A.B., Albion College, 1944.

England, Perry William
A.B., High Point College, 1946.

Farrell, Earl Thompson
Á.B., Elon College, 1944.
Forshee, James Woodrow
A.B., Birmingham-Southern College, 1942.

Groscup, Stacy LaGrande A.B., Morris Harvey College, 1945.

Harbin, Melton Edward
A.B., High Point College, 1945.

Hartz, John Leslie
B.S., Central Missouri State Teachers College, 1944.

Harwell, Robert William
A.B., University of North Carolina, 1942.

Haskew, John Bishop, Jr.
A.B., Athens College, 1944.

Howard, Robert Crawford
A.B., University of Alabama, 1944.

Hurley, John Bernard
A.B., Catawba College, 1944.

James, Howard Glenn
Johnson, Joseph Stephens
A.B., High Point College, 1944.

Jones, Norwood Lee
A.B., High Point College, 1944.

Jordan, Linwood Ray
A.B., Wake Forest College, 1942.

Kinlaw, Grover Cleveland
A.B., Wake Forest College, 1940.

Lipe, Godfrey Frederick
McDonald, Walter Neill
A.B., Duke University, 1944.

Madren, Weldon Thomas A.B., Elon College, 1943.

Maides, John Thomas
A.B., High Point College, 1944.

Marion, N. C.

Yanceyville, N. C.
Miami, Tex.
Greensboro, N. C.
Scranton, Ark.
Greensiono, N. C.
Danville, Va.
Algonac, Mich.
Gastonia, N. C.
Pittsboro, N. C.
Sylacauga, Ala.
Hamlin, W. Va.
Archdale, N. C.
St. Louis, Mo.
Mooresville, N. C.
Lower Peach Tree, Ala.

Mobile, Ala.
Asheboro, N. C.
Winterville, N. C.
Lake Junaluska, N. C.
Clayton, N. C.
Wilmington, N. C.
Lumberton, N. C.
Asheville, N. C.
Durham, N. C.
Burlington, N. C.
Maysville, N. C.

Meredith, McLaurin Mayers
B.S., Southwestern University, 1945.

Miller, Clairmont Thaw, Jr. A.B., Morris Harvey College, 1944.

Morton, Vernon Adams
A.B., High Point College, 1931.

Patterson, Howard Carlton
A.B., University of North Carolina, 1941.

Pruette, Rowland Shaw
A.B., Wake Forest College, 1943.

Reynolds, James William, Jr.
A.B., Randolph-Macon College, 1945.

Rumbley, George McClellan
A.B., Union College, 1944.

Schrader, Albert John
A.B., Mount Union College, 1944.

Seals, Daniel Hilton
A.B., University of North Carolina, 1945.

Short, Raymond Everett
A.B., Willamette University, 1944.

Smith, Edward Franklin
A.B., Duke University, 1945.

Spitzkeit, James Walton
A.B., Centenary College, 1944.

Thomas, Kenneth Maxwell
A.B., Austin College, 1944.

Toepel, Douglas Julius
A.B., Wayne University, 1944.

Villines, Floyd Galloway, Jr.
A.B., University of Arkansas, 1941.

Wallace, Aldred Pruden
A.B., Fairmont State Teachers College, 1942.

Way, Robert Bradford
A.B., University of South Carolina, 1945.

Wethington, Lewis Elbert
A.B., Wake Forest College, 1944.

White, Charles Denny
A.B., High Point College, 1939.

Winberry, Herman Stanford
A.B., Duke University, 1944.

## JUNIOR YEAR

Arnold, Jack Hampton
A.B., University of Virginia, 1945.

Auman, James Albert
A.B., High Point College, 1945.

Austin, Don Charlton
A.B., Wheaton College, 1944.

Aycock, Johnnie Dolphus
A.B., High Point College, 1945.

Brown, Jarvis Padgham
A.B., Trinity College, 1943.

Buckingham, Harry Forry, Jr. A.B., Western Maryland College, 1945.

Dallas, Tex.
Sissonville, W. Va.
Jamestown, N. C.
Burlington, N. C.
Wadesboro, N. C.
Hampton, Va.
Brownsville, Ind.
Pittsburgh, Pa.
Raeford, N. C.
Emmett, Ind.
Fayetteville, N. C.
Gulfport, Miss.
Dallas, Tex.
Detroit, Mich.
Elm Springs, Ark.
Hopewell, Va.
Ridgeland, S. C.
Durham, N. C.
Durham, N. C.
Mount Olive, N. C.

Portsmouth, Va.
Seagrove, N. C.
Pleasant Garden, N. C.
Littleton, N. C.
Portland, Ore.
Towson, Md.

Capers, Francis Ralph
B.S., Wofford College, 1939.

Clark, Ellie Nusome
A.B., Elon College, 1941.

Collins, Clyde Louis
A.B., High Point College, 1944.

Crawford, Leland
A.B., Syracuse University, 1944.

Flynn, Donald Luther
A.B., West Virginia Wesleyan.

Hirschi, Carlton Frederick
A.B., Allegheny College, 1945.

Hook, Ray Price
A.B., Wofford College, 1941.

Kirchgessner, Robert Frank
A.B., Higl Point College, 1943.

Knight, Calvin Stinson
A.B., Wake Forest College, 1945.

Lanier, Hoyle Glenn
A.B., High Point College, 1945.

McFarland, Wilbur Galloway
A.B., Trinity College, 1918.

Nease, Edgar Harrison, Jr.
A.B., Duke University, 1945.

Ransom, Eugene Arthur
A.B., University of Wisconsin, 1941.

Robinson, Milton Harvey
A.B., Southwestern University, 1940.

Scoggins, Eugene King
A. B., Wofford College, 1944.

Smart, Morgan Shelton
A.B., William and Mary College, 1945.

Snyder, Walstein Welch
A.B., Elon College, 1945.

Wells, William Miles, Jr.
A.B., Duke University, 1945.

Winn, Boyd Cleveland
A.B., Lenoir-Rhyne College, 1945.

Young, Russell Lowell
A.B., Catawba College, 1929.

Inman, S. C.
Burlington, N. C.
Durham, N. C.
Oswego, N. Y.
Buckingham, Va.
Woodhaven, N. Y.
Lexington, S. C.
Jersey City, N. J.
Leaksville, N. C.
Lexington, N . C .
Louisburg, N. C.
Greensboro, N. C.
West Allis, Wis.
El Paso, Tex.
Olanta, S. C.
Ettrick, Va.
Burlington, N. C.
Wilson, N. C.
Durham, N. C.
Asheville, N. C.

## SPECIAL STUDENTS

Beam, Billy Beth
Cherryville, N. C.
A.B., Greensboro College, 1941.

Bouknight, William R., Jr.
A.B., Newberry College, 1929.

Brown, Edith Upchurch
A.B., Duke University, 1942.

Grant, Willard William
Tampa, Fla.
A.B., Ohio Wesleyan University, 1923;
S.T.M., Boston University School of Theology, 1927.

Huston, Annie Laura Cotton
Stem, N. C.
A.B., Duke University, 1945.

Andrews, S. C.
Durham, N. C.

Taylor, Nixon Alfred
A.B., Atlantic Christian College, 1931.

Vick, Thomas Marvin
A.B., Southern Methodist University, 1936.

Durham, N. C.
Dallas, Tex.

## THE SCHOOL OF LAW

FIRST YEAR

Barnett, Robert Pray
A.B., Duke University, 1942.

Bloch, Arnold Ralph
Detroit Institute of Technology, 1938-41.
Bloomenthal, Harold
B.S., Marshall College, 1942.

Bouldin, Joseph Edwards
A.B., University of North Carolina, 1941.

Boyajian, Charles K.
A.B., Adrian College, 1938.

Brinkley, William L.
A.B., Duke University, 1944.

Burke, George Leonard, Jr.
B.S., North Carolina State College, 1929.

Cameron, Orton Jasper
A.B., University of North Carolina, 1942.

Clemence, Randall Byrd
A.B., Albion College, 1943.

Conley, Hollie
A.B., University of Kentucky, 1942.

Conners, John Thomas, Jr.
B.A., Vanderbilt University, 1941.

Cronin, Timothy Joseph
$\underset{\text { Hamilton College, } 1932-34 \text {; Brooklyn College, 1939-40. Raleigh, N. C. }}{\text { Timothy }}$
Doig, William Dunsmore
Duke University, 1941-44.
Dunn, Harvey
Duke University, 1938-41.
Earle, James Tilghman St. Petersburg, Fla.
Washington and Lee University, 1944; University of Texas, 1944-45; Duke University, 1945.
Eastwood, Roland Herbert
Ohio Wesleyan University, 1939-43.
Fogle, Harry Way Marietta, Ohio
A.B., Marietta College, 1942; University of Missouri, Summer, 1942.

Freeze, Wharey Moore
B.S., Davidson College, 1933.

Gearhart, Calvin Reece
A.B., Marshall College, 1945.

Gresham, Emmett Burdell
Augusta Junior College, 1939-41.

Wilmington, Del.
Detroit, Mich.
Burlington, Vt.
Jacksonville, N. C.
Detroit, Mich.
Greensboro, N. C.
Spencer, N. C.
Greensboro, N. C.
Flint, Mich.
Garrett, Ky.
Nashville, Tenn.

Pacanack Lake, N. J.
Frederick, Md.
St. Petersburg, Fla.
of Texas, 1944-45; Duke Uni-
Miami, Fla.

Alexandria, Va.
Ashland, Ky.
Alexandria, Va.

Hall, Forrest Chaimers
A.B., Elon College, 1946.

Hedrick, Dermot Quincy
South Georgia State College, 1934-36.
Hippensteel, Kenneth Joseph
B.S., Bloomsburg State Teachers College, 1940.

Hollyday, John Samuel A.B., Duke University, 1940.

Jones, John
Maryville College, 1942-43; Purdue University, 1943; Allegheny College, 1945.
Kearney, Charles Martin
A.B., University of Notre Dame, 1942.

Kennerly, Charles Odell, Jr. A.B., High Point College, 1942.

Launi, Netti Margaret Duke University, 1942-45.
MacKenzie, Hendry Kenneth Jamestown, N. D. Jamestown College, 1939-41; University of Minesota, 1941-42.

Midgett, George Edwards
The Citadel, 1941-43.
Sinor, John Michael The University of Cincinnati, 1935-39.
Newsome, George Hassell Tarboro, N. C. Duke University, 1944, 1945.
Oakes, Luther Taylor Weldon, N. C. Edwards Military Institute, 1939-41; Duke University, 1941-42.
Patterson, William S.
Chester, S. C. B.A., Erskine College, 1940; Graduate School, Duke University, 1941.

Peacock, Carver J.
B.S., University of North Carolina, 1939.

Poole, John Gibbs, Jr. Duke University, 1940-43, 1945.

Rae, Matthew Sanderson, Jr. A.B., Duke University, 1946.

Rice, Earle McGee
A.B., Furman University, 1941.

Rocap, Edward
Rosenthal, Marvin Daniel Duke University, 1942-44.

Shumaker, Audrey
A.B., Duke University, 1946.

Smith, Horace Carroll B.S., Wofford College, 1942.

Spencer, Richard Payne A.B., Duke University, 1942.

Stone, Frederick Hamilton
Springfield, Ill. Springfield Junior College, 1939-40; Duke University, 1940-42.

Thompson, Drury Blair
A.B., Davidson College, 1941.

Tribble, William Roy
A.B., Arizona State Teachers College, 1935.

Turley, James Anthony
A.B., Middlebury College, 1941.

Walter, Robert Wheaton
Duke University, 1942-44.
Warner, Tim Goode
A.B., Duke University, 1946.

Wilson, Edgar Hunter
Danville, Va.
Long Beach, Calif.
New Rochelle, N. Y.
Long Island, N. Y.
Greensboro, N. C.
Asheville, N. C.
Wake Forest, 1940-41; Biltmore College, 1941-42; George Washington University, 1942; Wittenberg College, 1943.

Wooten, Kenneth Fay, Jr. Nashville, Tenn.
B.A., Vanderbilt University, 1945.

Xanthos, John Dimitrius Wilmington, N. C. Wake Forest College, 1935-37.

SECOND YEAR
Andrus, William Santee
B.A., Occidental College, 1936.

Bates, Jasper A. Nashville, Tenn.
B.S., Union University, 1941; Vanderbilt Law School, 1941-42.

Boyce, Pearl Lorraine
Paullina, Ia.
B.S.C., University of Iowa, 1941; Drake University Law School, 1942-43.

Bradley, S. B. Scotland Neck, N. C.
A.B., University of North Carolina, 1938; University of North Carolina Law School, 1940-41.
Browder, Bannister Randolph, Jr. A.B., Duke University, 1943.

Brown, Richard Arnold
A.B., Duke University, 1943.

Chappell, Stanton Harry
B.S., University of Maryland, 1945.

Chase, Elizabeth Alden
B.S., Cornell University, 1942.

Coffey, Charles Shelby . Lookout Mountain, Tenn.
A.B., George Washington, 1941; George Washington Law School, 1941-42.

Craig, Arthur Buiton Owosso, Mich.
A.B., University of Michigan, 1942; University of Michigan Law School, 1943-44.

Dale, William House
B.A., Vanderbilt University, 1944.

Dube, Bertram James
A.B., Duke University, 1940.

Frase, Milan Edmunds Cuyahoga Falls, Ohio
A.B., Kent State University, 1940.

Golis, Paul
A.B., Albright College, 1940.

Columbia, Tenn.

Hudson Falls, N. Y.

New Milford, Pa.


King, Robert Palmer Stubenville, Ohio
A.B., Muskingum College, 1941.

Mar, David You Honolulu, Hawaii
B.A., University of Hawaii, 1937; University of Texas Law School, 1944.

McDermott, Raymond Lipscomb Durham, N. C.
A.B., Duke University, 1941.

McKinnon, Henry Alexander, Jr. Lumberton, N. C.
A.B., Duke University, 1943.

Moore, Robert Field Trenton, N. J.
A.B., Duke University, 1941.
 1938.39.

Murray, Robert Filgo Lenoir, N. C.
A.B., Duke University, 1944.

Regan, James William Lexington, N. C.
A.B., Catawba College, 1939.

Riggall, Arch John, Jr. Durham, N. C.
The Citadel, 1941-43; Duke University, 1943-44.
Smart, Tom Davis
A.B., Duke University, 1941.

Smith, Willis N., Jr. Durham, N. C.
A.B., Duke University, 1942.

Teel, Harry Rudd
B.S., Howard College, 1940.

Whitley, Wilford L.
B.S., Davidson College, 1945.

Williams, Christopher Harris $\quad$ Jackson, Miss,
University of Virginia, 1937-39; Duke University, 1939-40; Úniversity of Mississipp: Law School, 1940-42.

Winston, Robert Tunstall, Jr. Richmond, Va.
B.A., Randolph-Macon College, 1940.

Womble, Calder Willingham
A.B., Duke University, 1943.

Woodall, Jack Cnarles
Duke University, 1942-44.

# Duke University <br> THIRD YEAR 

Beal, John Clyde
Dallas, Texas
B.B.A., Southern Methodist University, 1944; School of Law, 1942-44.

Boutwell, Rufus Cecil, Jr. Durham, N. C.
A.B., Duke University, 1940.

Dunham, Eileen Fogle Richmond, Va.
A.B., Marietta College, 1943.

Dunham, Frank
A.B., University of Virginia, 1941.

Hewitt, Robert Seth Jacksonville, Fla.
A.B., University of Florida, 1940; School of Law, 1938-40.

Lloyd, Thomas Reese Cambridge, Ohio
A.B., Ohio State University, 1944.

Nolen, John Henry
A.B., Wofford, College, 1940.

Robertson, Joseph Roderick Knightdale, N. C.
B.S., Wake Forest College, 1938, College of Law, 1936-38.

Rutledge, Ivan Cate Durham, N. C.
A.B., Carson-Newman College, 1934; A.M., Duke University, 1940.

Sanger, Julian Douglas Richmond, Va.
B.A., University of Richmond, 1940.

Silverberg, Jeroll New Canaan, Conn.
Bucknell University, 1941-43.
Strine, Lee Tremain Yurk, Pa.
A.B., University of Southern California, 1940.

Truesdale, Sidney Louis
A.B., Duke University, 1939.

Unger, Maurice Medford Station, N. Y.
A.B., Duke University, 1940.

## GRADUATE

Barfield, Lee Bayne
Mercer University, LL.B. 1940.
Craven, James Braxton, Jr. Morganton, N. C.
A.B., Duke University, 1939; Harvard Law School, LL.B. 1942.

DeVita, Leonard Joseph
Washington and Lee University, LL.B. 1939.
McCalle, Samuel Horace, Jr.
B.S., Davidson College, 1939.

McKown, Jonathan Zachariah
A.B., University of South Carolina; LL.B. 1941.

## THE SCHOOL OF MEDICINE

## October 1, 1945-June 22, 1946 <br> FIRST YEAR

Robert Shields Abernathy Gastonia, N. C.
Davidson College: Massachusetts Institute of Technology, Yale University.
Henry Clifford Alexander, Jr Charlotte, N. C. Duke Uniz'ersity.
Kenneth Eugene Ambrose (N) Oblong, Ill. Duke Uniz'ersity.
James Bertram Anderson Mesa, Ariz.
Aniversity of Arizona.
Antoinette Baca. Earlington, Ky.
Duke University; University of North Carolina; Vassar College.
Carey N. Barry Clearwater, Fla. University of Florida.
William Clement Battle State Park, S. C. University of South Carolina; Presbyterian College; Duke University.
William Rhett Berry, Jr St. George, S. C. Wofford College.
George Andrew Bishopric (N) Spray, N. C. Duke University.
Orange, N. J.
Joe L. Bonnet
Washington, D. C. Hugh Page Brawner, Jr Duke University.
David Franklin Busby (N) Memphis, Tenn. Southwestern; Duke University.
Carolyn Coker Hartsville, S. C. Mount Holyoke College.
Eugene Jones Cornett (N) Salem, Va. Virginia Polytechnic Institute; Emory and Henry College.
John Nathaniel Crowder (N) High Point, N. C.Duke University.
James Carroll Crutcher (N) ..... Dover, N. J.Duke University.
Daniel William Davis, Jr Columbia, S. C.The Citadel.
Julian Carlyle Davis Quincy, Fla.
Duke University University of Florida; University of Tennessee, University of North Carolina.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program.
Wayne Edward Davis (N) High Point, N. C.Duke University.
William Allen DeYoung Bay City, Mich.
Bay City Junior College; University of Miehigan.
Richard Thomas Farrior (N) Tampa, Fla.
University of Florida;
University of Miami.
Benjamin Hugh Flowe (N) Concord, N. C.
Duke University.
Ann Fouch Orrville, Ohio Duke Universitj.
William Denton Furst (N) Catonsville, Md.
Duke University.
John William Geibel, Jr. (A) Berea, Ohio
College of Wooster
Clemson College;
University of Maryland.
William Harold Gentry Roxboro, N. C.
Wake Forest College; Duke University.
James Patrick Grattan (A) Medford, Okla.
Oklahoma A. and M.; Vanderbilt University.
Gloria Lee Grimes Charlotte, N. C.
Duke University.
Robert L. Hallet (A) Springfield, Ill.
University of Vermont ; University of Maryland.
Charles Mitchell Hamilton (N) Nashville, Tenn.
Vanderbilt University; Duke University.
Louis Elmore Harmon, Jr. (A) Russellville, Ohio
Miami University;
Mississippi State; Vanderbilt University.
William Franklin Harris (A) Inola, Okla.
East Texas State Teaehers College; Louisiana State University.
William Park Hickman Bridgeville, Pa.
University of Pittsburgh.
Robert Lind Isham (N.) Nashville, Tenn.
Vanderbilt University;
Unizersity of North Carolina.
Robert Franklin Kibler Durham, N. C.
Duke University.
John Hoskins Kier Shelby, Miss.
Southwestern College.
Melvin Arnold Krugly (A) Chicago, Ill.
University of Illinois;
The Ohio State University.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) In -dicates Apprentice Seaman in the Navy V-12(S) Program.
Joseph Laesser Kuhn ..... Buffalo, N. Y.Colgate Unizersity.
Ramon Linus Lange (A) Superior, Wis.
Superior State Teachers College, Vanderbilt University.
Samuel George Latty Durham, N. C. University of North Carolina.
Lawrence Robert Loftus (A) Toledo, Ohio Vanderbilt Unizersity.
William McCall, Jr. (N) Winston-Salem, N. C. Duke University.
Walter Rutledge Miller Johnson City, Tenn. Davidson College.
James LeRoy Morgan (N) Norfolk, Va. Duke University.
Mary Lou Mulligan Lakewood, Ohio Duke University.
Nina Mae Musselman Bethlehem, Pa.Duke University.
George Stephen Ninos (A) Bolivar, N. Y.Virginia Military Institute.Louisiana State University.
Aldrich Holt Northup (N) Pensacola, Fla.Duke University.
Suydam Osterhout (N) Massapequa, N. Y.Princeton Unizersity.
Ernest Benjamin Page, Jr. (N) ..... Raleigh, N. C.Duke University.
Jack Rodney Rabenberg (N) Wakefield, Nebr. Wheaton College;Duke University.
Gilbert Anthony Rannick (A) Kenosha, Wis.University of Wisconsin;University of Detroit;The Ohio State University.
Emmanuel Raphael Riff (A) Chicago, Ill. University of Illinois;The Ohio State University.Betty Sams RoofColumbia, S. C.Unizersity of South Carolina.
Dana Roy Schmidt (A) ..... Marion, OhioThe Ohio State University;Rose Polytechnic Institute;Unizersity of Michigan.
Harold Warren Schnaper (A) Dorchester, Mass.Harzard University:Louisiana State University.
Lawrence Herbert Schwartz (A) Dertoit, Mich.Wayne University,Unizersity of Michigan;Hope College;University of Illinois.
James Lee Scott, Jr. (A) Starkville, Miss. Washington and Lee; Michigan State Normal College; University of Michigan.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Ir dicates Apprentice Seaman in the Navy V-12(S) Program.
James Herbert Shipp (A) Haughton, La.
Michigan State University;University of Michigan.
Fredrika Patchett Smith New York, N. Y. Wilson College; Smith College.
Ivan Eugene Smith (A) ..... Chicago, Ill.Chicago Teachers College;Rose Polytechnic Instituté;University of Michigan.
Rosalind Gower Smith Durham, N. C.Duke University.
Earl Norman Solon (A) Chicago, Ill.University of Chicago;University of Michigan.
James Lampton Titchener (A) Binghamton, N. Y
Princeton University;The Citadel;University of Maryland.
James Kenneth Tompkins Johnson City, N. Y.Duke University.
John F. Tracey (A) Kansas City, Mo. University of Mississippi.
Evelyn Gray Vail Pikeville, N. C. Duke University.
Junius Ernest Warinner, III (N) Richmond, Va. Hampden-Sydney; Duke University.
Joseph Warshaw (A) N. Hollywood, Calif. Louisiana State University.
Carl Holmes Weatherly, Jr ..... Leaksville, N. C.Wake Forest College;Duke University.
Oscar Brown Williams, Jr. (N) Austin, Tex.University of Texas.
John Winkle Wilson, Jr. (N) Chattanooga, Tenn. Unizersity of Chattanooga; Duke University.

July 2, 1945-March 23, 1946

## SECOND YEAR

George Reid Andrews Mt. Gilead, N. C. Dartmouth College; Yale University; Duke University.
James S. Arnold Chicago, Il1.
Duke University.
John Rainey Ashe, Jr. Charlotte, N. C.
The Citadel: Davidson College.
Graham Arthur Barden, Jr. (N) New Bern, N. C.
Virginia Military Institute; Duke University.
Robert Henry Barnes Cooperstown, N. Y.Union College.
Wilmer Conrad Betts (N) Raleigh, N. C. Duke Universtity.
John Vernon Blalock Durham, N. C.Duke University.
Donald Dean Carter (N) Erwin, Tenn.Duke University.
Gordon Malone Carver, Jr. (N) Durham, N. C.Duke Unizersity.
Warren James Collins Savannah, Ga.Duke University.
Ross Bache Cone ..... New York, N. Y.Oberlin College.
Herbert Lucien Corse Jacksonville, Fla. Princeton University.
William John Amsterdam DeMaria Westport, Conn. Univcrsity of Connecticut.
Marcus Lunsford Dillon, Jr. (O) Lewisburg, W. Va. Duke Unizersty.
Bruce Hugh Dorman (N) Plainfield, N. J.Duke University.
Dante John Feriozi (N) Washington, D. C. Georgetown University;Duke University.
Harry Gustav Fish, Jr Penns Grove, N. J. Duke University.
Robert Ross Fisher Youngstown, Ohio Duke University.
Lucius Gaston Gage, Jr. Charlotte. N. C.Duke University.
Howard William Gillen ( N ) Glen Rock, N. J. Duke University.
Robert Averill Gowdy W. Los Angeles, Calif. Daiddson College;University of Minnesota;Duke University.
M. Edwin Green, Jr. Lemoyne, Pa . Princeton University.
Charles Groshon Gunn, Jr. (N) Bluefield, W. Va. Dazidson College; Duke University.
William Pullen Hadley (N) Gainesville, Fla.
University of Florida.
William Clifford Haggerty (N) Lakewood, Ohio Duke University.
Louis Harris Paterson, N. J. Columbia College.
James Graham Harrison, Jr Mount Airy, N. C. The Citadel; Duke Unizersity.
John Hopewell Hebb (N) Baltimore, Md.Duke University.
Howard Egbert Herring, Jr. (N) Wilson, N. C. Duke University.
James William Hollingsworth Mt. Airy, N. C. Duke University.
Nashville, Tenn. Albert P. Isenhour, JrVanderbilt University.
Winston-Salem, N. C.
Henry LeRoy Izlar, Jr. (N)Brooklyn, N. Y.Jerome Milton JaverDuke University.
W. Thomas Jay, Jr Bradford, Pa.Duke University.
James Patton Johnson, Jr. (N) Lakeland, Fla. Duke University.
Harry John Kalevas Rockingham, N. C. Duke University.
James Ellis Kicklighter ( N ) Sarasota, Fla.
Davidson College; Duke University.
William Lies, III Coleman, Ga. Duke University.Carney's Point, N. J.Eugene Joseph LinbergDuke University.
Augusta, Ga. John Terrell Logue, Jr. (A) Duke University;Georgia School of Technology;University of Wisconsin.
Robert Frederick Lorenzen Toledo, OhioDuke University.
Donald Vincent Mahony (N) Sparks, Md.Calvert Hall Collcge;Duke University.
Joseph Howard McAlister Caruthersville, Mo. Duke University.
Ruth Reade McDonald Durham, N. C.Duke University.
Theodore Jackson McGee, Jr

$\qquad$
.Columbus, Ga.The Citadel.
Harry Thurman McPherson Morgantown, W. Va.Duke University.
Thomas Peter McWilliams Scranton, Pa.Duke University.
Jane Merrill ..... Woodward, Ala. University of Alabama.
Berry Bryant Monroe (N) Laurinburg, N. C. Davidson College.
John Crawford Muller Dillon, S. C.The Citadel.
Calvin Russell O'Kane Columbus, Ohio Duke University.
John Council Parker (N) ..... Farmville, N. C.Virginia Episcopal School:University of North Carolina.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program.
Jack Guyes Robbins (A) Durham, N. C. Duke University.
Paul Mark Sarazen, Jr. (N) White Plains, N. Y.Duke University.
Hugh Key Sealy, Jr Reynolds, Ga. Emory' University.
Robert John Sheridan Wehawken, N. J.Duke University.
Alfred Jay Sherman (N) Harrisburg, Pa.Duke University.
Norman Jay Silver New York, N. Y.Duke University.
Zachary Arnold Simpson Charlotte, N. C.Duke University.
Robert Marshall Sinskey (N) Baltimore, Md.Washington and Lee University;Duke University.
Chandler Sparkman Smith (N) Robersonville, N. C.Duke University.
Lucius Stone Smith (N) Rome, Ga.Washington and Lee University;Duke University.
George Edward Staehle (N) Newark, N. J.Princeton Unicersity.
Bernard William Strone (N) Perth Amboy, N. J. Duke University.
Robert Hamilton Thayer (N) Seattle, Wash. Philips Exeter Academy;Yale University.
James Cain Vardell, Jr. (N) Moncks Corner, S. C.University of the South.
Lonnie Austine Waggoner, Jr. (N) Charlotte, N. C.Duke University.
Isom Clements Walker, Jr Woodland, Ga. Duke University.
Robert Marion Wilhoit Troy, N. C. Wake Forest College.
Robert Walter Willett (N) New York, N. Y. Duke University.
Benjamin Hairston Williamson Mt. Airy, N. C. Davidson College.
William Glenn Young, Jr. (N) Washington, D. C.
July 2, 1945-March 23, 1946
JUNIOR YEAR
Samuel Sheridan Ambrose, Jr. (N) Jacksonville, N. C. Duke University.
Ben Vaughan Branscomb (N) Durham, N. C.Duke University.
William Lester Brooks, Jr. (N) Charlotte, N. C. Princeton University.
James Robert Browning (N) Windber, Pa.Duke University.
John Ralph Burgess, Jr. (A) Missoula, Mont.Montana State University.
James Ryan Chandler (A) Daytona Beach, Fla. Duke University.
Thomas Carlaw Clifford (A) Shipman, Va.Yale University.
Raphael Woodward Coonrad (N) Evans City, Pa. Davidson College.Goldsboro, N. C.Thomas Barker Dameron, Jr. (N)The Citadel;Duke University;University of North Carolina.
James Charles Dawson, Jr. (A) San Francisco, Calif.San Francisco Junior College:University of San Francisco.
Albert W. Farley, Jr. (A) Bay City, Mich.University of Michigan;Duke University.
Blake Fawcett (N) Alderson, W. Va.Duke University.
Tom Bruce Ferguson (A) Tulsa, Okla. Duke University.
Paul Gardner Fillmore (A) Provo, Utah Brigham Young University.
Forest Hills, N. Y. Herman Field Froeb (A)Princeton University.
Joseph Platt Gutstadt (N) Chicago, Ill.University of Chicago:Duke University.
Robert Slotterback Keller (N) Lavelle, Pa.Duke University.
Dwight Talmadge Kernodle (A) Elon College, N. C.Elon College.
William Arnold Lambeth, Jr. (N) ..... Asheville, N. C.Duke University.
Atala Jane Scudder Davison Levinthal Durham, N. C.Barnard College;Duke University;Swarthmore College.
Robert Oscar Lipe (N) Albemarle, N. C.Duke University.
Donald Stanley Littman (N) Sunnyside, L. I., N. Y.Duke University.
Frank Henry Longino (N) Texarkana, Ark.Duke University.
Ralph Taylor McCauley (A) Roderfield, W. Va.Virginia Polytechnic Institute.
John Marshall McCoy (N) Charlotte, N. C.Erskine College.
Robert Ligon McWhorter, Jr. (N) Athens, Ga.University of Georgia;Emory University.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) Indicates Apprentice Seaman in the Navy V-12(S) Program.
Robert Pickens Marshall (N) Washington, D. C. Duke University.
John Edward Masterson University Heights, Ohio Adelbert College of Western Reserve Üniversity.
William Thomas Mayer (A) Shelby, Ohio Adelbert College of Western Reserve University.
Loren Valmore Miller (N) ..... Yonkers, N. Y.Concordia Collegiate Institute;Duke Unizersity.
John Robert Morris (N) Youngstown, Ohio Duke Unizersity.
Donald Robertson Mundie (N) Kenmore, N. Y. Duke University.
Henry Hale Nicholson, Jr. (A) Statesville, N. C. Duke Unizersity.St. Petersburg, Fla.Sherman Homer Pace (N)Duke University.
Grover Smith Patterson (N) Kannapolis, N. C. Catawba College.
Robert Franklin Poole, Jr. (A) Clemson, S. C. The Clemson Agricultural College.
Rhea Sutphen Preston (A) Ponotoc, Miss. Davidson College.
William Watkins Pryor (A) Oxford, N. C. Wake Forest College.
Harry Campbell Sammons (N) Marietta, Ohio Marietta College.
Guy Phillip Sharpe, Jr. (N) Tchula, Miss.Tulane University;University of Colorado;Vanderbilt University.
Kenneth Sihler Shepard (A) Chicago, Ill.Duke University.
James Loughrey Smeltzer (N) Youngstown, Ohio Western Reserve University; Duke University.
Ernest Wendell Smith (N) Charlotte, N. C. Duke University.
Stuart Cameron Smith (A) Staten Island, N. Y. Duke University.
LeRoy Everett Talcott, Jr. (N) Hartford, Conn.
Allen Taylor (A) Greenville, N. C.Duke Üniversity.
James Robert Teabeaut, II (A) Fayetteville, N. C.Duke University.
Jack Lamkin Teasley (N) St. Albans, W. Va. Duke University.
Robert Hicks Thompson (N) Dublin, Ga.
Clemson College;Duke University.
William West Thompson (A) Hallsboro, N. C. Wake Forest College; Duke University.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) In- dicates Apprentice Seaman in the Navy V-12(S) Program.
Willis Herbert Thornburg (A) New York, N. Y. Duke University.
Silas Owens Thorne, Jr. (N) Charlotte, N. C.Duke University.
Frederick Cleverly Vogell (A) Wilmore, Ky. Asbury College.
William Charles Wansker (N) Macon, Ga. Duke Unizersity.
Joseph Major Ward (N). Robersonville, N. C.University of North Carolina.
Norma Ware Macon, Ga. Duke University.
Harry Leon Wechsler (N) ..... McKeesport, Pa.
Duke University.
Milton Weinberg, Jr. (N) ..... Sumter, S. C.
Duke University.
Robert Cooper Welsh (N) Miami, Fla. Duke University.
David Craig White (A) Englewood, N. J. Duke University.
Lawrence Jack Wilchins (A) Cincinnati, Ohio Duke University.
Roger Davis Williams (A) Charlotte, N. C. Duke University.
Leo Hughes Wilson, Jr. (N) Bradenton, Fla.
University of Florida;
University of Florida;Duke University.
William Preston Wilson (A) Durham, N. C. Campbell Junior College; Duke University.
John Lemuel Wooten (A) Greenville, N. C.Duke University.
Richard Nickles Wrenn (N) Anderson, S. C.Duke University.
John Engler Zeliff, Jr. (N) Youngsville, Pa. Pennsylvania State College; Duke University.
July 2, 1945-March 23, 1946 SENIOR YEAR
Harry Sholar Allen, Jr. (A) Florence, S. C. Dazidson College.
Clarence Leonidas Anderson (A) Tampa, Fla. Davidson College.
Reid Hogan Anderson (A) Pullman, WashState College of Washington.
Robert Harper Anderson (A) Wilson, N. C.Duke University.
Dorothy Clarke Armstrong Port Arthur, Ontario, CanadaPort Arthur Collegiate;Tufts College.(A) Indicates Private First Class in the Army Specialized Training Program. (N) In-dicates Apprentice Seaman in the Navy V-12(S) Program.
James Guernsey Bassett (A) Port Huron, Mich.
Port Huron Junior College; University of Michigan.
Ritchie Hugh Belser (A) Columbia, S. C. The Citadel.
Alfred Seymour Berne (A) Woodhaven, N. Y.Duke University.
Richard Titsworth Binford (U) Guilford College, N. C.Guilford College;University of North Carolina.
Richard Calvin Bishop (N) St. Petersburg, Fla.Duke University.
Alexander White Boone, Jr. (A) Penns Grove, N. J.Duke University.
William Richard Brink (A) Williamsport, Pa.Williamsport Dickinson Junior College;Pennsylvania State College;Harvard University.
Thomas Ray Broadbent (A) Heber, Utah Brigham Young University.
John Burton Bryan (N) St. Petersburg, Fla. St. Petersburg Junior College; Duke University.
Frank Highsmith Campbell (N) Durham, N. C. Duke University.
Ralph Ingersoll Cottle, Jr. (N) Warren, Ohio Duke University.
Robert Edwin Crompton (A) Toronto, Ontario, Canada Unizersity of Toronto; University of Toronto Medical School, 1940-1942.
John Murdoch Crowell (A) Chattanooga, Tenn. University of Chattanooga.
Frank Willard Davis, Jr. (A) Biltmore, N. C. Duke University.
John Wesley DeReamer (A) Morrisville, Pa. Duke University.
Elaine G. Fichter West Hazelton, Pa. Maryville College.
Zenas Waldo Ford, Jr. (A) Fayetteville, Ark. University of Arkansas.
Saul Arnold Frankel (A) Woodmere, L. I., N. Y. Yale University.
Walter Houseal Goggans (A) Newberry, S. C. Clemson College.
James Boyd Golden ( N ) Greenfield, Mass.
Everett Richard Harrell, Jr. (N) Birmingham, Mich. Ohio Wesleyan; Duke University.
Edward Gustavus Haskell, Jr. (N) Jacksonville, Fla. The Citadel.(A) Indicates Private First Class in the Army Specialized Training Program. (N) In-dicates Apprentice Seaman in the Navy V-12(S) Program. (U) Indicates commission asAssistant Surgeon in the U.S.P.H.S. Reserve.
Charles Tracy Henderson (A) Morris, Ind.Duke University.
William N. Henderson Maplewood, N. J.New York University;Duke University.
Thomas Alfred Hockman (N) Kalamazoo, Mich. University of Cincinnati; Duke University.
David Smith Hubbell (A) Durham, N. C.Duke University.
Carlos Lee Hudson (A) Urbana, Ill. University of Illinois.
Ralph Herlinger Jamison (N) Warren, Ohio Western Reserve University; Duke University.
Joseph Kempton Jones (N) Salisbury, N. C. Duke University.
Thomas Francis Kelley (A) Waltham, Mass. Massachusetts State College; University of California.
Grace P. Kerby Miami, Fla. Florida State College for Women; Johns Hopkins University.
Ethen Sease Koon, Jr. (N) Asheville, N. C. Biltmore College; Mars Hill College; Duke University.
Duval Holtzclaw Koonce (A) Chadbourn, N. C. Duke University.
Thomas Howard Lewis (N) Seattle, Wash. University of Washington.
Carmine Keith Lyons (N) Charleston, W. Va. Duke University.
Walter Anderson McLeod, Jr. (N) St. Petersburg, Fla. St. Petersburg Junior College;Duke University.
John Guy Maines, Jr. (N) Ossining, N. Y.Duke University.
Ashton Bryom Morrison Sunnyside, Northern Ireland Qucen's University.
Paul Lanier Ogburn (A) Charlotte, N. C. Canadian Academy; Duke University.
Harold Monroe Peacock (N) Benson, N. C. University of North Carolina.
Paterson, N. J. Robert Lloyd Pinck (A) Waslington and Lee University.
Ralph Waldo Powell (N) Avondale Estates, Ga. Duke University.
James Warren Rogers (N) Cleveland Heights, OhioUniversity of Georgia.
Evan Weible Schear (A) Westerville, OhioOtterbein College.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) In-dicates Apprentice Seaman in the Navy V-12(S) Program.
John Edgar Scheid, Jr. (N) Brackenbridge, Pa. Westminster College.
Guy Walter Schlaseman (A) Lansford, Pa.Duke University.
Paul Henry Sherman (N) Baltimore, Md. Alabama Polytechnic Institute;Duke University.
Alwyn Abraham Shugerman (A) Birmingham, Ala.
Birmingham-Southern College; University of Alabama.
Homer Alden Sieber (A) Roanoke, Va.Roanoke College.
John Delabarre Staub (N) Houston, Tex.Rice Institute;Texas University.
Richard Marks Stitt (N). Warren, Ohio Pennsylvania State College; Denison University.
Thomas Bayton Suiter, Jr. (A) Rocky Mount, N. C. Duke University.
Richard Earl Symmonds (N) Memphis, Mo. Central College.
Lloyd McCully Taylor (N) Maryville, Tenn.
Maryville College.
James Richard Thistlethwaite (A) Richmond, Va. University of Richmond.
Frederick Arrowood Thompson, Jr. (A) Lenoir, N. C. Duke University.
Robert Gordon Thompson (A) Durham, N. C. Duke University.
Malcolm Paul Tyor (N) Jamaica, N. Y. University of Wisconsin.
Joseph Emmett Walthall, III (A) .Athens, W. Va. Greenbrier Military School; West Virginia University.
Lewis William Wannamaker (A) St. Matthews, S. C. Emory University.
Bailey Daniel Webb .Oxford, N. C. Greensboro College; University of North Carolina.
James Foster Williamson (N) Columbia, S.C. Clemson College.
Dan Hall Willoughby (A) Jackson, Miss. University of Mississippi; Duke University.
John Cummings Withington Savannah, Ga. Duke University.
Frank Reece Wrenn (N) Anderson, S. C. Duke University.
Jack Dunn Wycoff (N) Springfield, Ky.
The Citadel.
(A) Indicates Private First Class in the Army Specialized Training Program. (N) In- dicates Apprentice Seaman in the Navy V-12(S) Program.

## THE SCHOOL OF NURSING <br> SENIOR STUDENTS

Alexander, Henry Quincy Pineville, N. C.
Mitchell College.
Althauser, Ben Eva Fort Lauderdale, Fla. Pre-Nursing Course, Duke University.
Armbrister, Elizabeth A. Bluefield, W. Va.Pre-Nursing Course, Duke University.
Beasley, Eleanor Louisburg, N. C. Louisburg College; Brevard College.
Berry, Jean Mills Durham, N. C.
Blackwell, Isabel. Marion, S. C.Limestone College.
Bowden, Mary Ellen Fitzgerald, Ga. Mercer University; Pre-Nursing Course, Duke University.
Brisson, Mittie Jean Lumberton, N. C. Mars Hill Junior College; Pre-Nursing Course, Duke University.
Campbell, Barbara Ann Gainesville, Fla.
Pre-Nursing Course, Duke University.
Champion, Elizabeth L. Kannapolis, N. C.
Pre-Nursing Course, Duke University.
Clegg, Elizabeth Durham, N. C. Duke University.
Edens, Doris A. Rowland, N. C. Appalachian State Teachers College; Pre-Nursing Course, Duke University.
Fleming, Ilah Gainesville, Fla.
University of Florida, Florida State College for Women.
Garrett, Emily L Lancaster, S. C. Winthrop College; Pre-Nursing Course, Duke University.
Gibson, Patricia Ann. Hampton, Va. Farmville State Teachers College.
Giles, Dorothy Nell Huntsville, Ala.
Pre-Nursing Course, Duke University.
Goff, Mary Jean. Fort Benning, Ga. La Crosse State Teachers College.
Haigh, Joanne Daytona Beach, Fla.
Florida State College for Women; Pre-Nursing Course, Duke University.
Harris, Margaret Ray Durham, N. C. Pre-Nursing Course, Duke University.
Harrison, Betty Jo. Georgetown, Ky. Georgetoun College.
Johnson, Betsy Ross Clayton, N. C. Pre-Nursing Course, Duke University.
King, Margaret A. Pleasant Garden, N. C.
Pfeiffer Junior College; Pre-Nursing Course, Duke University.
Lane, Jacqueline A. Flat Rock, N. C. Barnard College; Pre-Nursing Course, Duke University.
Langlois, Mary Vannah. Brevard, N. C.University of Tennessee.
Logan, Georgia Bryan Chapel Hill, N. C.University of North Carolina.
Lott, Virginia E. Aiken, S. C. Winthrop College.
Lovette, Virginia Wilkesboro, N. C. Pre-Nursing Course, Duke University.
Lucas, Maude Lee. Hillsboro, N. C.
University of North Carolina; Pre-Nursing Course, Duke University.
McKeever, Shirley Ann. Washington, D. C.
Pre-Nursing Course, Duke University.
McLendon, Anna Madge Greenville, S. C. Furman University.
Majette, Helen Jones Franklin, Va. Mary Washington College; Pre-Nursing Course, Duke University.
Marston, Peggy Lee Edinburg, Va. Madison College.
Michie, Jacqueline A. Durham, N. C. Pre-Nursing Course, Duke University.
Morgan, Evelyn Davis. Salisbury, N. C. Catawba College.
Nicholson, Dorothy J. Converse, S. C. Winthrop College, Pre-Nursing Course, Duke University.
Otken, Mary Frances Greenwood, Miss.
Belhaven College; Pre-Nursing Course, Duke University.
Peterson, Barbara Elizabeth Ann Arbor, Mich. Pre-Nursing Course, Duke University.
Pike, Rubilee Columbia, S. C.
University of South Carolina; Pre-Nursing Course, Duke University.
Pritchett, Sarah Scott Olanta, S. C. Winthrop College.
Roller, Jean. Roanoke, Va.
State Teachers College;
Pre-Nursing Course, Duke University.
Routledge, Sarah Elizabeth. Rome, Ga. Alabama Polytechnic Institute; Pre-Nursing Course, Duke University.
Seay, Margaret Waldo, Fla.
Florida State College for Women.
Short, Zelda Marie Bluefield, W. Va.
Bluefield College; Pre-Nursing Course, Duke University.
Smith, Edith E. Louisville, Ky. Franklin College of Indiana; Pre-Nursing Course, Duke University.
Smith, Margaret Louise. Fremont, N. C.
Pre-Nursing Course, Duke University.
Snyder, Cora Crawford Shepherdstown, W. Va.
Duke University; Pre-Nursing Course, Duke University.
Strother, Wincey Irene High Point, N. C. High Point College.
Swartz, Betty Jane. York, Pa.
York Junior College.
Thomas, Wilma Anne York, S. C.
Appalachian State Teachers College.
Walker, Mary Clair. ............................... Pre-Nursing Course, Duke University.
Welsh, Sarah Ruth Lumberton, N. C.
Pre-Nursing Course, Duke University.
Westman, Dorothy Buffalo, N. Y.
Pre-Nursing Course, Duke University.
Williams, Mary Elizabeth New Bern, N. C. Woman's College, University of North Carolina.
JUNIOR STUDENTS
Bailey, Lucille Watson Washington, D. C.
Pre-Nursing Course, Duke University.
Batten, Betty Jo Welch, W. Va. West Virginia University.
Bingham, Ruby Jewel Meadowview, Va. Pre-Nursing Course, Duke University.
Bishop, Martha Louise Henagar, Ala.
University of Alabama.
Bispham, Betty Ann Bradenton, Fla. Pre-Nursing Course, Duke University.
Blaylock, Doris Eileen Charleston, S. C. Pre-Nursing Course, Duke University.
Boring, Barbara Adair Wildwood, Fla. Florida State College for Women.
Bouton, Joanne Smethport, Pa. Pre-Nursing Course, Duke University.
Boynton, Sarah Ross Havana, Fla. Florida State College for Women.
Brabham, Ann Mildred Winnsboro, S. C. Winthrop College; Pre-Nursing Course, Duke University.
Braddock, Nina Marie Winston-Salem, N. C. Pre-Nursing Course, Duke University.
Bradsher, Frances Elizabeth Salisbury, N. C. Catawba College.
Bufkin, Mattee Bullard Leland, Miss.
Mississippi State College for Women; Pre-Nursing Course, Duke University.
Bundy, Jeanne Petteway Greenville, N. C. Pre-Nursing Course, Duke University.
Burrow, Betty Belle Bristol, Tenn Pre-Nursing Course, Duke Unizersity.
Christoph, Carolyn Edith Washington, ..... D. C. George Washington University, Pre-Nursing Course, Duke Unicersity.
Cline, Mary Laura Concord, N. C. Woman's College, Unizersity of North Carolina; Pre-Nursing Course, Duke Unizersity.
Compton, Anna Belle Arlington, Va. George Washington Unizersity.
Conroy, Patricia Ann Ozone Park, N. Y.Pre-Nursing Course, Duke University.
Cox, Frances Jean West End, N. C. Pre-Nursing Course, Duke University.
Craig, Eleanor Jacksonville, Fla. The Woman's College, Duke Unizersity.
Crovatt, Dorothy Belle Jacksonville, Fla. Pre-Nursing Course, Duke University.
Dalton, Eva Virginia Tampa, Fla.
Pre-Nursing Course, Duke Unicersity.
Daves, Annie Frances Kannapolis, N. C. Montreat College; Pre-Nursing Course, Duke University.
Davis, Annie Laura Todd, N. C. Appalachian State Teachers College; Pre-Nursing Course, Duke University.
Dawson, Deborah Washington, D. C. Pre-Nursing Course, Duke University.
Diggs, Gerry Annette Saltville, Va. Emory and Henry College; Pre-Nursing Course, Duke University.
Elliott, Mary Virginia Lincolnton, N. C. The Woman's College, Duke University; Pre-Nursing Course, Duke University.
Fairey, Margaret Elizabeth Johnston, S. C. Wintlirop College.
Ford, Alice Evelyn. Fairmont, W. Va. Pre-Nursing Course, Duke University.
Gaines, Mary Kathryn

$\qquad$
Winston-Salem, N. C. Woman's College, University of Nortli Carolina.
Giles, Frances Ann Sparta, Ga. Georgia State College for Women; Pre-Nursing Course, Duke University.
Gonzalez, Elpidia. Edinburg, Texas Edinburg Junior College; Pre-Nursing Course, Duke University.
Graveley, Mary Rosalie Orlando, Fla. Florida State College for Women.
Gregory, Ada Virginia. Havana, Fla. Florida State College for Women.
Hall, Dorothy Emily Wilmington, N. C. Pre-Nursing Course, Duke University.
Harris, Dorothy Laurel Hill, N. C. Pre-Nursing Course, Duke University.
Harry, Margaret Bloomfield Warm Springs, Ga. Georgia State College for Women; Pre-Nursing Course, Duke Úniversity.
Hart, Mary Catherine Tallahassee, Fla.
Florida State College for Women.
Hatcher, Audrey Virginia Roanoke, Va.
Madison College.
Herring, Clyde Fennell Fayetteville, N. C. Flora Macdonald College.
Howell, Margaret Elaine Lillington, N. C. Woman's College, University of North Carolina; Pre-Nursing Course, Duke University.
Hunter, Caroline Gibbes Columbia, S. C. University of South Carolina; Pre-Nursing Course, Duke University.
James, Mary Jordan Southern Pines, N. C. The Woman's College, Duke University; Pre-Nursing Course, Duke University.
Knight, Doris Virginia Rock Hill, S. C. Winthrop College.
Kurz, Flora Mae Tallahassee, Fla. Florida State College for Women.
Leach, Mary Elizabeth Kinston, N. C.
Flora Macdonald College; Pre-Nursing Course, Duke University.
Long, Jeanne Anne. Gettysburg, Pa. Pre-Nursing Course, Duke University.
McKinney, Doris Marie High Point, N. C. Pre-Nursing Course, Duke University.
Moore, Janice Haddonfield, N. J.
Pre-Nursing Course, Duke University.
Moore, Mary Frances Kannapolis, N. C.
Limestone College; Pre-Nursing Course, Duke University.
Norris, Hannah Matilda Columbia, N. C.
Carolina Teachers College; Pre-Nursing Course, Duke University.
Palmer, Rachel Eleanor Greenville, S. C.
Woman's College of Furman University.
Parmer, Minnie Florine Chipley, Fla. Pre-Nursing Course. Duke University.
Pegram, Ruth Ola Winston-Salem, N. C.
Louisburg College; Pre-Nursing Course, Duke University.
Petrea, Margaret Lyerly Salisbury, N. C. Lenoir-Rhyne College.
Proctor, Sarah Lucile. Tallahassee, Fla. Florida State College for Women.
Pugh, Frances Hope Franklinville, N. C.
Pre-Nursing Course, Duke University.
Ray, Nancy Launa Rocky Mount, N. C.
Pre-Nursing Course, Duke University.
Rearden, Helen Henrietta Arlington, Va
Mary Washington College.
Rice, Dorothy Helen Durham, N. C.
Pre-Nursing Course, Duke University.
Roy, Gloria Carmen Southampton, L. I., N. Y.
Averett College; Mary Washington College.
Sanders, DeLane Cecielle Clover, S. C.
Limestone College; Pre-Nursing Course, Duke University.
Schumm, Cora Belle Greensboro, N. C.
Pre-Nursing Course, Duke University.
Slick, Jane Lenore.
Gettysburg College.
Osterburg, Pa.
Smith, Emily Josephine. Statesville, N. C.Kent State University;Guilford College.
Smith, Ruth Beatrice Laurinburg, N. C.
Pre-Nursing Course, Duke University.
Smith, Shirley Mae. Wilmington, N. C.
Smoot, Julia Ann. Dillon, S. C. Pre-Nursing Course, Duke University.
Swartz, Gene Carolyn Roanoke, Va. Pre-Nursing Course, Duke University.
Thompson, Margaret White. Bristol, Va. Virginia Intermont College; Pre-Nursing Course, Duke University.
Timmons, Miriam Augusta, Ga. Georgia State College for Women; Pre-Nursing Course, Duke Unizersity.
Trent, Loa Jean Winston-Salem, N. C.
Hockaday Junior College; Pre-Nursing Course, Duke University.
Wall, Rachel Louise Durham, N. C. Peace College; Pre-Nursing Ćourse, Duke University.
Weeks, Flora Mary Pahokee, Fla.
White, Wanda Durham, N. C.
The Woman's College, Duke University.
Wiland, Elaine Margaret Lewistown, Pa.The Woman's College, Duke University.
Williams, Anna Beth Ruffin, S. C. Coker College Winthrop College.
Winters, Virginia Lewis.

$\qquad$
Charlotte, N. C. Pre-Nursing Course, Duke University.
Young, Beverly Ballenger Orlando, Fla. Limestone College; Pre-Nursing Course, Duke University.
FRESHMAN STUDENTS
Able, Mattie Katherine Saluda, S. C. Anderson College.
Raleigh, N. C. Adams, Dorothy W Peace Junior College.
Alderman, Rebecca Lorena Norfolk, Va. Madison College.
Bain, Doris Furgurson Greensboro, N. C. Greensboro College; Woman's College, University of North Carolina.
Banner, Ernestine June Blowing Rock, N. C. Appalachian State Teachers College.Washington, D. C.
Blake, Miriam AliceGeorge Washington University.
Spring Garden, Va. Bodkin, Betty Jean Glenville State College.
Bonura, Jacqueline Fort Lauderdale, Fla.
University of Miami.
Brown, Mary Lou. Forest City, N. C. Winthrop College.
Thomasville, N. C. Bruton, Annie Ruth Woman's College, University of North Carolina.
Carriker, Dorothy Jane Concord, N. C.Catawba College.
Cooper, Anna Jane Mt. Williams, Va. Roanoke College; George Washington University.
Cooper, Lessie Graham Anderson, S. C. Florida State College for Women.
DeLoach, Eva Elizabeth Savannah, Ga. Georgia Teachers College.
Douglas, Ruth Etta Statesville, N. C. Lenior-Rhyne College.
Duffy, Jean Frances Daleville, Va. Bridgezuter College.
Forest City, N. C.Duncan, Bettie JaneWoman's College, University of North Carolina.
.Randleman, N. C. Farlow, Daisy Pfeifer Junior College.
Freeman, Chispah Marguerite Liberty, S. C. Winthrop College.
Freeman, Jimmie Ruth Crossville, Ala. Jacksonville State Teachers College.
Goff, Marjorie Pinemount, Fla. Florida State College for Women.
Grabill, Norma June Woodstock, Va. Madison College.
Greene, Merlene Virginia Pompano, Fla.
University of Miami.
Anderson, S. C. Greer, Dorothy Sue Anderson Junior College.
Hedrick, Betty Sue Lexington, N. C. Catawba College.
Herrick, Joyce Anne. Washington, D. C.University of Michigan.
Hodges, Mary Lee Belhaven, N. C. Louisburg College.
Howser, Celeste Bramwell Julian, N. C. Woman's College, University of North Carolina.
Hunnings, Shirley Mason Charlotte, N. C. Queens College.
Hunter, Nancy Caroline ..... Raleigh, N. C.Mars Hill College.
Johnson, Bert Claire Lake Alfred, Fla. Berea College.
Kehoe, Clara Webster Bealeton, Va. Corpus Christi Junior College.
Kerr, Mary Carol Westerville, Ohio
Otterbein College.
Knotts, Mary Elles Hamlet, N. C.
East Carolina Teachers College.
Lange, Audrey Joan. Morristown, N. J. New Jersey College for Women.
Lineberger, Ethel ..... Catawba, S. C.Winthrop College.
Lochas, Maria Chris Pensacola, Fla. Florida State College for Women.
Long, Wilmpje Ann Arlington, Va. State Teachers College.
Lupton, Carrie Baggett Leasburg, N. C. Greensboro College.
Luther, Dorothy Carolyn Miami, Fla.
University of Miami.
East Lansing, Mich. McCartney, Lois Josephine
Erwin, N. C. McDonald, Agnes Carlotta...........
McManaway, Gladys Portsmouth, Va. Mary Baldwin College.
Red Springs, N. C. McManus, Martha.Evanston, Ill.McSwain, Rachel Ann
Manley, Clara J Huntington, W. Va. Huntington College.
Mason, Ann Norfolk, Va. Gulf Park College.
Morgan, Ann Lakeland, Fla. Florida Southern College.
Newman, Sallie Gayle Clinton, N. C. Flora Macdonald College; Atlantic Christian College.
Patt, Dolores Joy ..... Louisville, Ky. University of Louisville.
Patterson, Effie Johnson. Wagram, N. C. Woman's College, University of North Carolina.
Peele, Mary Trulah Williamston, N. C.
Meredith College.
Prevatt, Sara Carolyn Wilmington, N. C.
Woman's College, University of North Carolina.
Proffitt, Doris Marie Roanoke, Va. Converse College.
Smyrna, S. C. Quinn, Rachel. Erskine College.
Rainwater, Julia Elizabeth Cheraw, S. C. Winthrop College.
Ray, Grace Elizabeth Burnsville, N. C. Brevard College.
Ray, Virgie Mae Lillington, N. C. Woman's College, University of North Carolina.
Royer, Laura Nan Bluefield, W. Va.Marion College.
Shope, Barbara Rae Des Moine, Iowa Mars Hill College.
Shuford, Dorothy May Hickory, N. C. Appalachian State Teachers College.
Sims, Peggy Pelzer, S. C. Woman's College, Furman University.
Small, Carolyn Fay Lancaster, S. C. Winthrop College.
Smith, Fredericka Lucille Jacksonville, Fla. Florida State College for Women.
Smith, Maude Ufford Clinton, N. C.
East Carolina Teachers College.
Stephenson, Nancy Augusta, Ga. Augusta Junior College.
Troxler, Enid Vestal Reidsville, N. C. Woman's College, University of North Carolina.
Weatherman, Betty Jean Winston-Salem, N. C. Lenoir-Rhyne College.
Whorley, Evelyn Genevieve Roanoke, Va. Roanoke College.Honea Path, S. C.Williams, Louise DunnWoman's College, Furman University.
Wilson, Billie Loranine Asheville, N. C. Mars Hill College.
Wilson, Doris Beatrice Ahoskie, N. C. Woman's College, University of North Carolina.
THE SCHOOL OF FORESTRY
Adams, George L.
B.A., Montclair State Teachers College, 1935.
Anderson, George Arthur
B.S., Colorado State College, 1940.
Baskervill, William NelsonB.S., Hampden-Sydney College, 1942.

Morristown, N. J.
Northbrook, Ill.
Worsham, Va.

Galbraith, John Ross
B.S., Colorado State College, 1936.
Goebel, Norbert Bernard
B.S., Colorado State College, 1940.

Heberling, Ralph Bloom
B.S., Pennsylvania State College.

Marra, George G.
B.S., New York State College of Forestry, 1940; M.S., New York State College of Forestry, 1942.

Plowden, John Gabriel
B.S.F., University of Georgia, 1941.

Somberg, Seymour Ira
B.S., Iowa State College, 1941.

Stoehr, Henry Arthur
B.S., University of Minnesota, 1933.

Watkins, Virgil Gray
B.S., University of Virginia, 1937.

Young, Harold Edle
B. S., University of Maine, 1937.

Henderson, Tenn.
Racine, Wis.
Spartanburg, S. C.
Webster, N. Y.

Summerton, S. C.

Miami, Fla.
Trezevant, Tenn.
Kent's Store, Va.
Miami, Fla.

STUDENTS OF FORESTRY IN THE GRADUATE SCHOOL OF ARTS AND SCIENCES

Barnes, George Hector
B.S.F., University of Washington, 1924;
M.F., University of California, 1929.

Matte, Lorenzo
B.A., Université Laval, 1932;

Bachelor of Surveying, Université Laval, 1939;
Forestry Engineer, Université Laval, 1939;
M.F., Duke University, 1944.

ACADEMIC-FORESTRY SENIOR
Warner, John Robinson
Walkersville, Md.

## SUMMARY

GOVERNMENT, ADMINISTRATION, AND INSTRUCTION
Governing Boards ..... 49
Trustees of Duke University ..... 34
Trustees of Duke Endowment ..... 15
Officers of Administration ..... 75
The University ..... 6
Trinity College, the Woman's College, the College of Engineering and the Schools ..... 22
Assistants in Administration ..... 47
Officers of Instruction ..... 508*
Professors ..... 123
Associate Professors ..... 81
Assistant Professors ..... 105
Instructors ..... 130
Instructional Assistants
64
Staff of University Libraries
696
Total
STUDENTS
Trinity College and the College of Engineering ..... 4,403
(On Navy V-12 program; 1,983 duplicates)
March 5, 1946-June 24, 1946, Semester ..... 1,843
November 3, 1945-February 25, 1946, Semester ..... 1,624
July 4, 1945-October 25, 1945, Semester ..... 936
Civilian Men Enrolled on Woman's College Schedule ..... 52
Woman's College ..... 1,034
Seniors ..... 182
Juniors ..... 231
Sophomores ..... 251
Freshmen ..... 326
Special Students ..... 44
The Graduate School of Arts and Sciences ..... 492
(236 of these in regular academic year)
The School of Law ..... 106
First Year ..... 52
Second Year ..... 35
Third Year ..... 14
Graduate Students ..... 5
The School of Medicine ..... 364
First Year ..... 72
Second Year ..... 72
Junior Year ..... 67
Senior Year ..... 71
Graduates (Interns and Residents) ..... 82
The School of Nursing ..... 205
Technicians ..... 28
The School of Dietetics ..... 12
The Divinity School ..... 158
Seniors ..... 71
Middle Year ..... 54
Juniors ..... 26
Special Students ..... 7
Not including visiting members of Summer Session Faculty.
** Not including Graduate Assistants, Fellows, and Scholars, some of whom meet classes.
The School of Forestry ..... 15
The Summer Session ..... 904
(221 duplicates in Summer Session)
Graduates, May 29 term ..... 45
Graduates, June 19 term ..... 352
Graduates, July 31 term ..... 137
Undergraduates, May 29 term ..... 105
Undergraduates, June 19 term ..... 198
Undergraduates, July 31 term ..... 67
Deduction for names appearing more than once ..... 7,773 ..... 2,460
Enrollment for 12 months' period ..... 5,313
Enrollment in academic year ..... 4,630
(Less duplicates in V-12 program)

## GIFTS AND BEQUESTS

Duke University derives its principal support from endowment funds and from miscellaneous gifts and grants. Permanently invested capital funds enable the University to offer to students academic and professional training at a fraction of its actual cost. The effectiveness of the University is determined to a large extent by its financial resources.

Gifts and bequests devoted to the improvement of the work of the University will be received and administered by the trustees in accordance with the desires of the donor.

Gifts. Any kind of property, real or personal, may be the subject of a gift and only such form as is required to pass title is necessary. If the gift consists of real property, the title will be passed by deed; if it consists of cash or unregistered bonds, the gift is consummated by delivery of the property; or if stocks, by delivery of properly endorsed stock certificates. Unless restricted, the use of gifts is at the discretion of the Board of Trustees. Usually the proceeds, conservatively invested, are added to the permanent endowment of the University. The donor may, however, restrict the use of any gift and designate definitely the objects for which it shall be used. In such cases, the transfer of property would be accomplished by a letter or other document describing in detail the objects for which the proceeds of the gift are to be used and when accepted by the University the terms or conditions set out therein become binding upon it.

Bequests. Bequests may be made to the University by an appropriate clause inserted in a will or by codicil to a will already drawn. The following forms will serve as appropriate clauses for wills or codicils:

## General

I give (devise; if real property) and bequeath to Duke University, a corporation existing under the laws of the State of North Carolina and located in the City and County of Durham, State of North Carolina, and its successors forever the sum of.
dollars (or otherwise describe the gift) for the general purposes and uses of the University at the discretion of the Board of Trustees.

## Specific

I give (devise; if real property) and bequeath to Duke University, a corporation existing under the laws of the State of North Carolina and located in the City and County of Durham, State of North Carolina, or its successors forever, the sum of dollars (or otherwise describe gift) and direct that the income therefrom shall be used for the following purposes, viz. (here describe in detail the use desired).

## Codicil

Having herebefore made my last Will and Testament dated. , and being of sound mind, I hereby make, publish, and declare the following codicil thereto; (here insert clause in same form as if it had been included in body of Will). Except as hereinbefore changed, I hereby ratify, confirm and republish my said last Will and Testament.

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Date Due


Duke University.
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Tr.R. $378.756 \begin{array}{llll} & \begin{array}{ll}\text { D8777HA } \\ 1945 / 46\end{array} & \text { V. } 18 & 506277\end{array}$


[^0]:    * First-year students do not have the holiday at the end of this quarter; instead they have a holiday from February 9-18, 1946.
    $\dagger$ Beginning with the Summer Quarter of 1946 the accelerated program will be optional; four quarters of teaching will be available in the clinical years. Students must take two semesters the first year and three quarters in subsequent years, but they may take four quarters in the last two years, i.e. students eligible to take junior or senior work may proceed to their next clinical quarter or may take a vacation during the summer or any other quarter. There is no summer quarter between the first and second years. For details of this curriculum, see page 55 .
    $\ddagger$ First-year students do not have the holiday at the end of this quarter; instead they have a holiday from February 8-24, 1947.

[^1]:    * On active duty; U. S. Army.
    $\dagger$ On leave of absence.

[^2]:    * On active duty; U. S. Navy.
    $\dagger$ On active duty; U. S. Army.

[^3]:    *On active duty; U. S. Navy.
    $\dagger$ On active duty; U. S. Army.

[^4]:    * Also at 9:00 A.M.

[^5]:    * By previous appointment only.

[^6]:    * On active duty; U. S. Army.

[^7]:    Judith Farrar, A.B., B.S., Librarian. Mildred Perking Farrar, Assistant Librarian. Marjorie Burrus, Assistant Librarian.
    "To study the phenomena of disease without bocks is to sail an uncharted sea, while to study books without patients is not to go to sea at all." -SIR WILLIAM OsLER.

[^8]:    * This test is given at many of the colleges. If information is not available locally, it mav be secured from Dr. F. A. Moss, Columbia Medical Building, Washington, D. C.
    $\dagger$ This examination is given at many universities. If information is not available locally, it may be secured from The Graduate Record Office, 437 West 59th St., New York 19, N. Y.

[^9]:    * On active duty; U. S. Army.

[^10]:    * On active duty; U. S. Navy.

[^11]:    * On active duty; U. S. Army.
    $\dagger$ On leave of absence.

[^12]:    * On active duty: U. S. Army.

[^13]:    * Physiology will start four weeks after the beginning of the second semester, and will run to the end of the semester.
    $\dagger$ Biochemistry will start at the beginning of the second semester and will end four weeks before the end of the semester.

[^14]:    * The clinical instruction is repeated each quarter in order to utilize all the clinical material and to lave small groups of students. Consequently, students may vary the order of the seventh, eighth, and ninth quarters, and also the order of the tenth, eleventh, and twelfth quarters. The above schedule merely illustrates the program of one group.

[^15]:    * Rooms may be reserved by medical students in Few Quadrangle. These rooms are provided with furniture, heat, electric light, and care of rooms; each student furnishes his own blankets, sheets, pillow-slips, towels, and pillows. Applications for rooms, accomnanied by a reservation fee of $\$ 25$, should be made by writing to Mr. W. F. Whitford, Duke University. Durham, N. C.
    $\dagger$ Payable at the beginning of the quarter in which a student is eligible for a degree or examination.

[^16]:    ${ }^{1}$ Grades for each hour of college credit and also for credit earned in the School of Forestry are valued in quality points as follows: "A," 3 points; "B," 2 points; "C," 1 point; "D," no points; and " $F$," no credit and -1 point.

[^17]:    ** Special student.
    ** Candidate for the degree of Master of Forestry.

[^18]:    Published by Duke University monthly except in July, August, September, and December. Entered as second-class matter March 25, 1929, at the Post Office of Durkam, North Carolina, under the Act of August 24, 1912.

[^19]:    * Wherever possible, physics or chemistry should be offered for this requirement.
    $\dagger$ Examination required to validate offering.
    $\ddagger$ One elective unit in any of the above languages will be accepted for admission provided the language requirement has been satisfied without it. As many as four units will be accepted in any one of these languages.

[^20]:    * The notice to Dr. Scates should be accompanied by specific approval of the Director of Graduate Studies certifying that the student has met the requirements of the Graduate School up to this point.

[^21]:    *The system of grading used in the Graduate, School is as follows: "E," or "Exceptional"; " G ", or "Good"; " S ," or "Satisfactory." " S " is interpreted in terms of percentage grading as being at least ten points above the undergraduate "pass" of 70 . " G " is normally interpreted as indicating a standing in the upper twenty-five per cent of the department's students over a period of years.
    $\dagger$ In meeting the requirements for the A.B. or B.S. degree at Duke University, a student is not allowed excessive concentration in any one field. The same principle is applied in evaluating the undergraduate record of candidates for admission to the Graduate School.

[^22]:    * Under certain conditions candidates for the Master of Education degree may also write theses. (See p. 14.)

[^23]:    * Students completing the M.Ed. degree by examination pay an examination fee of $\$ 25$, in lieu of thesis supervision fee.

[^24]:    * All courses are offered tentatively and subject to minimum enrollments. Some courses not listed will be given when demand develops and an instructor is available.
    $\dagger$ For the convenience of students working toward graduate degrees the names of the chairmen of departments and directors of graduate courses are given for departments now offering in the Summer Session a full sequence of courses leading to Master's degrees. For other departments the names of the chairmen are listed.

[^25]:    * Absent on leave, Government Service, first semester, 1945-1946.
    $\dagger$ Absent on leave, Government Service, 1945-1946.
    $\ddagger$ Resigned, August 31, 1945.

[^26]:    * Resigned, October 31, 1945.
    t On active duty, U. S. Army.
    $\ddagger$ On active duty, U. S. Navy.

[^27]:    * Absent on leave, Government Service, first half, 1945-1946.

[^28]:    * Absent on leave, second semester, 1945-1946.

[^29]:    * Absent on sabbatical leave, second semester, 1945-1946.
    $\dagger$ On leave of absence, 1945-1946.
    $\neq$ On active duty, U. S. Army.
    ** Resigned, February 1, 1946.

[^30]:    * Absent on leave, 1945-1946.
    $\dagger$ Absent on sabbatical leave, first semester, 1945-1946.
    $\ddagger$ Resigned, August 31, 1945.

[^31]:    * On active duty, U. S. Army, first semester, 1945-1946.
    $\dagger$ Resigned, August 31, 1945.

[^32]:    - On active duty, U. S. Navy.
    $\dagger$ Resigned, August 31, 1945.

[^33]:    * Absent on leave, Government Service, 1945-1946.
    $\dagger$ Resigned, August 31, 1945.
    $\ddagger$ On active duty, U. S. Army, until March 1, 1946.

[^34]:    * Absent on leave, 1945-1946.
    $\dagger$ On active duty, U. S. Army.

[^35]:    * On active duty, U. S. Navy.
    $\dagger$ On active duty, U. S. Army.
    $\pm$ Absent on leave, Government Service, 1945-1946.

[^36]:    * Resigned, January 30, 1946.
    $\dagger$ Second semester only.
    $\ddagger$ Appointment began December 1, 1945.

[^37]:    * Second semester only.
    $\dagger$ First semester only.
    $\ddagger$ Resigned, December 10, 1945.

[^38]:    *Not more than six semester hours of electives may be taken in the Department of Religion.

[^39]:    * Greek or Latin may be substituted for either French or German
    $\dagger$ The following courses are required: Education 84,88 (which meets the requirement in educational psychology), 101, and 110.

[^40]:    * History is an alternate with economics or political science in the minimum requirements when the student presents two units of history for admission.
    $\dagger$ Students in Class B should take Education 8 the first semester and follow it with the course approved by the Department of Education the second semester; students in Class A follow the same plan or take any of the electives authorized for the General Group.
    $\ddagger$ When there is overlapping, the minimum uniform requirements are accepted as a part of the special requirements in this group.

[^41]:    * The requirement is the same as for the Degree of Bachelor of Science, except that Spanish may be substituted for French.

[^42]:    * Wherever possible, physics or chemistry should be offered for this requirement.
    $\dagger$ Examination required to validate offering.
    $\ddagger$ One elective unit in any of the above languages will be accepted for admission provided the language requirement has been satisfied without it. As many as four units will be accepted in any one of these languages.

[^43]:    *See Physical Education and Intercollegiate Sports.

    + When the laboratory in Chemistry $153-154$ supplements that of another course and is taken simultaneously with such course, no fee is charged with Chemistry 153-154.

[^44]:    * Sce Physical Education and Intercollegiate Sports, p. 164.

[^45]:    * Inactive for the duration of the war.

[^46]:    * Died, March 25, 1946.

[^47]:    * Two years in college or two years in high school and one year in college.

[^48]:    * Resigned, August 31, 1945.
    $\dagger$ Absent on leave, 1945-46.

[^49]:    * Resigned, March 1, 1946.
    $\dagger$ Second semester only.

[^50]:    * In meeting the requirements for the A.B. or B.S. degree at Duke University, a student is not allowed excessive concentration in any one field. The same principle is applied in evaluating the undergraduate record of candidates for admission to the Graduate School.

[^51]:    * Absent on leave, second semester, 1946-47.

[^52]:    * This course will also be offered in the spring semester and students may take it in either semester.
    $\dagger$ For the year 1946-47 this course will also satisfy the requirement of Church History 234, which will not be given owing to Professor Petry's absence on leave during the second semester.
    $\ddagger$ Required of students who have not completed at least three semester hours of undergraduate sociology.

[^53]:    * Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity.

[^54]:    * The University reserves the right to withdraw any course in which fewer than ten enroll. Students interested should, therefore, apply promptly.

[^55]:    * Includes only students enrolled in the Divinity School.

[^56]:    * Laws of $1858-1859$, chapter 85 , page 81 .

[^57]:    * Absent on sabbatical leave, second semester, 1946-47.
    $\dagger$ Absent on sabbatical leave, 1946-47.
    $\ddagger$ Resigned, June 30, 1946.
    ** Resigned, October 31, 1945.

[^58]:    * Absent on leave, Government Service, first half, 1945-46.
    $\dagger$ On active duty, U. S. Army.
    $\ddagger$ Absent on sabbatical leave, 1946-47.
    ** Resigned, June 30, 1946.

[^59]:    * Resigned, August 31, 1946.
    $\dagger$ Resigned, June 30, 1946.

[^60]:    * Resigned, February 1, 1946.
    $\dagger$ Resigned, June 30, 1946.

[^61]:    * Resigned, June 30, 1946.

[^62]:    * Absent on sabbatical leave, second semester, 1946-47.

[^63]:    Absent on sabbatical leave, 1945-1946.
    $\dagger$ Resigned, June 30, 1946.
    $\ddagger$ Absent an sabbatical leave, second semester, 1946-47.
    *** On leave of absence.
    *** Absent on leave, second semester, 1945-1946.
    $\dagger \dagger$ Resigned, August 31, 1946.

[^64]:    * Resigned, February 28, 1946.
    $\dagger$ Resigned, December 31, 1945.

[^65]:    *Resigned, December 31, 1945.

[^66]:    *Resigned, November 30, 1945.

[^67]:    * On leave, September, 1945.
    $\dagger$ Resigned, June 30, 1946.
    $\ddagger$ Resigned, May 15, 1946.
    ** Resigned, March 31, 1946.
    *** Resigned, December 31, 1945.
    $\dagger \dagger$ Resigned, March 1, 1946.
    $\dagger \dagger \dagger$ Resigned, April 5, 1946.

[^68]:    * On leave, October 1, 1945.
    $\dagger$ Resigned, March 23, 1946.
    $\neq \ddagger$ Resigned, February 15, 1946.
    ** Resigned, February 1, 1946.
    *** Resigned, June 6, 1946.

[^69]:    * Appointment began December 1, 1945.
    $\dagger$ Second semester only.
    $\ddagger$ First semester only.

[^70]:    * Not more than six semester hours of electives may be taken in the Department of Religion.

[^71]:    * Greek or Latin may be substituted for either French or German
    $\dagger$ The following courses are required: Education 84, 88 (which meets the requirement in educational psychology), 101, and 110.

[^72]:    * History is an alternate with economics or political science in the minimum requirements when the student presents two units of history for admission.
    $\dagger$ Students in Class B should take Education 8 the first semester and follow it with the course approved by the Department of Education the second semester; students in Class A follow the same plan or take any of the electives authorized for the General Group.
    $\ddagger$ When there is overlapping, the minimum uniform requirements are accepted as a part of the special requirements in this group.

[^73]:    *The requirement is the same as for the Degree of Bachelor of Science, except that Spanish may be substituted for French.

[^74]:    PROFESSOR BLOMQUIST, CHAIRMAN; ASSOCIATE PROFESSOR OOSTING, DIRECTOR OF UNDDERGRADUATE STUDIES ; ASSOCIATE PROFESSOR ANDERSON, SUPERVISOR OF FRESHMAN INSTRUCTION ; ASSOCIATE PROFESSOR ADDOMS, SUPERVISOR OF FRESHMAN INSTRUCTION (WOMAN'S COLLEGE) ; PROFESSORS HARRAR, KRAMER AND WOLF ; ASSOCIATE PROFESSOR PERRY;

    AND ASSISTANTS

[^75]:    - 

[^76]:    * Wherever possible, physics or chemistry should be offered for this requirement.
    $\dagger$ Examination required to validate offering.
    $\ddagger$ One elective unit in any of the above languages will be accepted for admission provided the language requirement has been satisfied without it. As many as four units will be accepted in any one of these languages.

[^77]:    *See Physical Education and Intercollegiate Sports.
    $\dagger$ When the laboratory in Chemistry $153-154$ supplements that of another course and is taken simultaneously with such course, no fee is charged with Chemistry 153-154.

[^78]:    * In meeting the requirements for the A.B. or B.S. degree at Duke University, a student is not allowed excessive concentration in any one field. The same principle is applied in evaluating the undergraduate record of candidates for admission to the Graduate School.

[^79]:    * Required of students who have not completed at least three semester hours of undergraduate sociology.
    $\dagger$ This course will also be offered in the spring semester and students may take it in either semester.
    $\ddagger$ For the year 1946.47 this course will also satisfy the requirement of Church History 234, which will not be given owing to Professor Petry's absence on leave during the second semester.
    ${ }^{* *}$ Required of students who have not completed at least three semester hours of undergraduate sociology.

[^80]:    * Required courses.

[^81]:    *This test is given at many of the colleges. If information is not available locally, it mav be secured from Dr. F. A. Moss, Columbia Medical Building. Washington. D. C. $\dagger$ This examination is given at many universities. If information is not available locally, it may be secured from The Graduate Record Office, 437 West 59th St., New York 19, N. Y.

[^82]:    * Rooms may be reserved by medical students in Few Quadrangle. These rooms are provided with furniture, heat, electric light, and care of rooms; each student furnishes his own blankets, sheets, pillow-slips, towels, and pillows. Applications for rooms, accompanied by a reservation fee of $\$ 25$, should be made by writing to Mr. W. E. Whitford, Duke University, Durham, N. C.
    $\dagger$ Payable at the beginning of the quarter in which a student is eligible for a degree or examination.

[^83]:    ${ }^{1}$ Grades for each hour of college credit and also for credit earned in the School of Forestry are valued in quality points as follows: "A," 3 points; "B," 2 points; "C," 1 point; "D," no points; and " $F$," no credit and -1 point.

[^84]:    * Students completing the M.Ed. degree by examination pay an examination fee of $\$ 25$, in lieu of thesis supervision fee.

